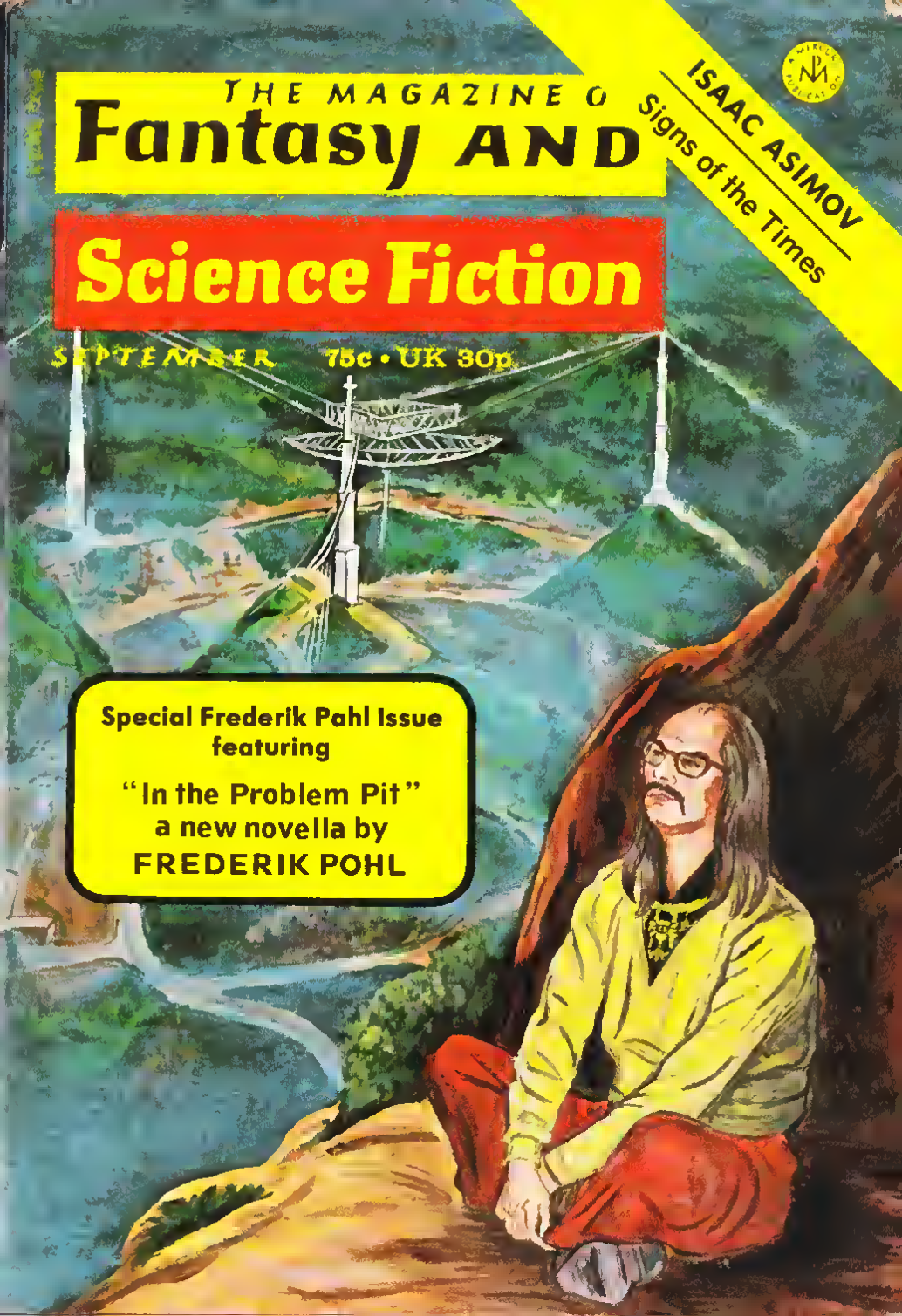

THE MAGAZINE O
Fantasy AND
Science Fiction
SEPTEMBER 75c • UK 30p
ISAAC ASIMOV
Signs of the Times
Special Frederik Pahl Issue
featuring
"In the Problem Pit"
a new novella by
FREDERIK POHL

I HAVE NO MOUTH AND I MUST SCREAM



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SPECIAL FREDERIK POHL SECTION

In The Problem Pit (*novella*)	FREDERIK POHL	5
Frederik Pohl: Frontiersman (*article*)	LESTER DEL REY	55
Frederik Pohl: Bibliography	MARK OWINGS	65

NOVELET

Cage A Man	F. M. BUSBY	121

SHORT STORIES

The Helmet	BARRY N. MALZBERG	74
Dominions Beyond	WARD MOORE	78
I Wish I May, I Wish I Might...	BILL PRONZINI	94
The Cryonauts	EDWARD WELLEN	98

FEATURES

Films	BAIRD SEARLES	70
Cartoon	GAHAN WILSON	73
Science: Signs Of The Times	ISAAC ASIMOV	108

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This is the seventh in our series of special issues devoted to distinguished authors of science fiction, and perhaps no one has made a greater and more varied contribution to the genre than Fred Pohl — not only as writer, but as editor and lecturer. He began in this field in 1939 — barely out of his teens — as editor of *Astonishing Stories*. In 1972, shortly after Fred began writing sf again, we saw him at the Science Fiction Writers of America Nebula Awards banquet and proposed this special issue. At the 1973 banquet, two of his stories were on the final Nebula ballot, recognition of the superior quality of his latest work and promise of the extraordinary novella that you are about to read.

In The Problem Pit

by FREDERIK POHL

David

Before I left the apartment to meet my draft call I had packed up the last of Lara. She had left herself all over our home: perfumes, books, eye shadow, Tampax, ivory animals she had forgotten to take and letters from him that she had probably meant for me to read. I didn't read them. I packed up the whole schmear and sent it off to her in Djakarta, with longing and hatred.

Since I was traveling at government expense, I took the hyperjet and then a STOL to the nearest city and a cab from there. I paid for the whole thing with travel vouchers, even the cab, which enormously annoyed the driver; I didn't tip him. He bounced off down the road muttering in Spanish, racing his motor and double-clutching on the switchbacks, and there I was in front of the pit facility, and I didn't want to go on in. I wasn't ready to talk to anybody about any problems, especially mine.

There was an explosion of horns and gunned motors from down the road. Somebody else was arriving, and the drivers were fighting about which of them would pull over to let the other pass. I made up my mind

to slope off. So I looked for a cubbyhole to hide my pack and sleeping bag in and found it behind a rock, and I left the stuff there and was gone before the next cab arrived. I didn't know where I was going, exactly. I just wanted to walk up the trails around the mountains in the warm afternoon rain.

It was late afternoon, which meant it was, I calculated, oh, something like six in the morning in Djakarta. I could visualize Lara sound asleep in the heat, sprawled with the covers kicked off, making that little ladylike whistle that served her in place of a snore. (I could not visualize the other half of the bed.)

I was hurting. Lara and I had been married for six years, counting two separations. And the way trouble always does, it had screwed up my work. I'd had this commission from the library in St. Paul, a big complicated piece for over the front foyer. Well, it hadn't gone well, being more Brancusi and interior-decorator art than me, but still it had been a lot of work and just about finished. And then when I had it in the vacuum chamber and was floating the aluminum plating onto it, I'd let the pressure go up, and air got in, and of course the whole thing burned.

So partly I was thinking about whether Lara would come back and partly whether there was any chance I could do a whole new sculpture and plate it and deliver it before the library purchasing commission got around to canceling my contract, and partly I wasn't thinking at all, just huffing and puffing up those trails in the muggy mist. I could see morning glories growing. I picked up a couple and put them in my pocket. The long muscles in my thighs were beginning to burn, and I was fighting my breathing. So I slowed down, spending my concentration on pacing my steps and my breathing so that I could keep my head away from where the real pain was. And then I found myself almost tripping over a rusted, bent old sign that said *Pericoloso* in one language and *Danger* in another.

The sign spoke truth.

In front of me was a cliff and a catwalk stretching out over what looked like a quarter of a mile of space.

I had blundered onto the old telescope. I could see the bowl way down below, all grown over with bushes and trees. And hanging in the air in front of me, suspended from three cables, was a thing like a rusty trolley car, with spikes sticking out of the lower part of it.

No one was around; I guess they don't use the telescope any more. I couldn't go any farther unless I wanted to go out on the catwalk, which I didn't, and so I sat down and breathed hard. As I began to get caught up on my oxygen debt, I began to think again; and since I didn't want to do that, I pulled the crushed morning glories out of my pocket and chewed on a few seeds.

Well, I had forgotten where I was. In Minneapolis you grow them in a window box. You have to pound them and crush them and soak them and squeeze them, hundreds of seeds at a time, before you get anything. But these had grown in a tropical climate.

I wasn't stoned or tripping, really. But I was — oh, I guess the word is "anesthetized." Nothing hurt any more. It wasn't just an absence of hurting, it was a positive *not* hurting, like when you've broken a tooth and you've finally got to the dentist's office and he's squirted in the novocaine and you can feel that not-hurting spread like a golden glow across your jaw, blotting up the ache as it goes.

I don't know how long I sat there, but by the time I remembered I was supposed to report in at the pit the shadows were getting long.

So I missed dinner, I missed signing in properly, I got there just in time for the VISTA guard to snap at me, "Why the hell can't you be on time, Charlie?" and I was the last one down the elevators and into the pit. Everybody else was gathered there already in a big room that looked like it had been chopped out of rock, which I guess it had, with foam cushions scattered around the floor and, I guess, twelve or fourteen people scattered around on the cushions, all with their bodies pointed toward an old lady in black slacks and a black turtleneck, but their faces pointed toward me.

I flung down my sleeping bag and sat on it and said, "Sorry."

She said, rather nicely, "Actually, we were just beginning." And everybody looked at me begrudgingly, as though they had no choice but to wait while I blew my nose or built myself a nest out of straws or whatever I was going to do to delay them all still farther, but I just sat there, trying not to look stoned, and after a while she began to talk.

Tina's Talk

Hello. My name is Tina Wattridge, and I'm one of your resource people.

I'm not the leader of this group. There isn't any leader. If the group ever decides it has to have a leader, well, it can pick one. Or if you want to be a leader, you can pick yourself. See if anybody follows. But I'm not it, I'm only here to be available for answering questions or giving information.

First, I will tell you what you already know. The reason you are all here is to solve problems.

(She paused for a moment, scratching her nose and smiling, and then went on.)

Thank you. A lot of groups start complaining and making jokes right there, and you didn't. That's nice, because I didn't organize this group, and although I must say I think the groups work out well, it isn't my fault that you're here. And I appreciate your not blaming it on me.

Still, you are here, and we are expected to state some problems and solve them, and we will stay right here until we do that, or enough of it so that whoever's watching us is satisfied enough to let us go. That might be a couple of weeks. I had a group once that got out in 72 hours, but don't expect that. Anyway, you won't know how long it is. The reason we are in these caves is to minimize contact with the external world, including all sorts of times cues. And if any of you have managed to smuggle watches past the VISTA people, please give them to me now. They're not allowed here.

I saw some of you look interested when I talked about who is watching us, and so I ought to say right now I don't know how they watch or when, and I don't care. They do watch. But they don't interfere. The first word we will get from them is when the VISTA duty people unlock the elevator and come down and tell us we can go home.

Food. You can eat whenever you want to, on demand. If you want to establish meal hours, any group of you can do so. If you want to eat singly, whenever you want to, fine. Either way you simply sign in in the dining room — "sign in" means you type your names on the monitor; they'll know who you are; just the last name will do — and order what you want to eat. Your choices are four: "Breakfast," "snack," "light meal" and "full meal." It doesn't matter what order you eat them in or when you want them. When you put in your order, they make them and put them in the dumbwaiter. Dirty dishes go back in the dumbwaiter except for the disposable ones, which go in the trash chute. You can ask for certain special dishes — the way you want your eggs, for instance — but in general you take what they give you. It's all explained on the menu.

Sleep. You sleep when you want to, where you want to. In these three rooms — this one, the problem pit and the eating room, as well as the pool and showers — the lights are permanently on. In the two small rooms out past the bathrooms and laundry the lights can be controlled, and whoever is in the room can turn them on or off any way you like. If you can't agree, you'll just have to work it out.

(She could see them building walls between themselves and her, and quickly she tried to reduce them.)

Listen, it's not as bad as it sounds. I always hate this part because it sounds like I'm giving you orders, but I'm not; those are just the ground rules and they bind me too. And, honestly, you won't all hate it, or not all of it. I've done this fifteen times now, and I look forward to coming back!

All right, let's see. Showers, toilets and all are over there. Washer-dryers are next to them. I assume you all did what you were told and brought wash-and-wear clothes, as well as sleeping bags and so on; if you didn't, you'll have to figure out what to do about it yourselves. When you want to wash your clothes, put your stuff in one of the net bags and put it in the machine. If there's something already in the machine, just take it out and leave it on the table. The owner will pick it up when he wants it, no doubt. You can do three or four people's wash in a single cycle without any trouble. They're big machines. And there's plenty of water — you people who come from the Southwest and the Plains States don't have to worry. Incidentally, the sequenced water-supply system that you use there to conserve potable water was figured out right in this cave. The research and development people had to work it over hard, to get the fluidic controls responsive enough, but the basic idea came from here; so,you see, there's a point to all this.

(She lit a cigarette and looked cheerfully around at the group, pleased that they were not resisting, less pleased that they were passive. She was a tall and elderly red-headed woman, who usually managed to look cheerful without smiling.)

That brings me to computation facilities, for those of you who want to work on something that needs mathematical analysis or data access. I will do a certain amount of keyboarding for you, and I'll be there to help — that's basically my job, I guess. There are two terminals in the pit room. They are on-line, real-time, shared-time programs, and those of you who are familiar with ALGOL, COBOL and so on can use them direct. If you can't write a program in computer language, you can either bring it to me — up to a point — or you can just type out what you want in clear. First, you type the words HELP ME; then you say what you want; then you type THAT'S ALL. The message will be relayed to a programmer, and he will help you if I can't, or if you don't want me to. You can blind-type your queries if you don't want me looking over your shoulder. And sign your last

come to everything. And, as always, if more of you want to use the terminals than we have terminals, you'll have to work it out among you. I don't care how.

Incidentally, the problem pit is there because some groups like to sit face to face in formal surroundings. Sometimes it helps. Use it or not, as you like. You can solve problems anywhere in these chambers. Or outside, if you want to go outside. You can't leave through the elevator, of course, because that's locked now. Where you can go is into the rest of the cave system. But if you do that, it's entirely your own responsibility. These caves run for at least 80 miles and maybe more, right down under the sea. We're at least ten miles by the shortest route from the public ones where the tourists come. I doubt you could find your way there. They aren't lighted, and you can very easily get lost. And there are no, repeat no, communications facilities or food available there. Three people have got lost and died in the past year, although most people do mange to find their way back — or are found. But don't count on being found. No one will even start looking for you until we're all released, and then it can take a long time.

My personal advice — no, I'm sorry. I was going to say that my personal advice is to stay here with the rest of us, but it is, as I say, your decision to make, and if you want to go out you'll find two doors that are unlocked.

Now, there are two other resource people here. The rest of you are either draftees or volunteers. You all know which you are, and for any purposes I can think of it doesn't matter.

I'll introduce the two other pros. Jerry Fein is a doctor. Stand up, will you, Jerry? If any of you get into anything you can't handle, he'll help if he can.

And Marge Klapper over there is a physiotherapist. She's here to help, not to order you around, but — advice and personal opinion again, not a rule — I think you'll benefit from letting her help you. The rest of you can introduce yourselves when we get into our first session. Right now I'll turn you over to — what? Oh, thanks, Marge. Sorry.

The pool. It's available for any of you, any time, as many of you as want to use it. It's kept at 78 degrees, which is two degrees warmer than air temperature. It's a good place to have fun and get the knots out, but, again, you can use it for any purpose you like. Some groups have had active, formal problem-solving sessions in it, and that's all right too.

Now I think that's it, so I'll turn you over to Marge.

Marge Interacting

Marge Klapper was 24 years old, pretty, married but separated, slightly pregnant but not by her husband, and a veteran of eight problem-group marathons.

She would have challenged every part of the description of her, except the first and the last, on the grounds that each item defined her in terms of her relationship to men. She did not even liked to be called "pretty." She wasn't in any doubt that she was sexually attractive, of course. She simply didn't accept the presumption that it was only her physical appearance that made her so. The men she found sexually attractive came in all shapes and sizes, one because he was so butchy, one because of his sense of humor, one because he wrote poems that turned into bars of music at the end. She didn't much like being called a physiotherapist, either; it was her job classification, true, but she was going for her master's in gestalt phychology and was of half a mind to become an M.D. Or else to have the baby that was just beginning to grow inside her; she had not yet reached a decision about that.

"Let's get the blood flowing," she said to all of them, standing up and throwing off her shorty terry cloth robe. Under it she wore a swimsuit with a narrow bikini bottom and a halter top. She would have preferred to be nude, but her breasts were too full for unsupported calisthenics. She thought the way they flopped around was unesthetic, and at times it could be actively painful. Also, some of the group were likely to be shy about nudity, she knew from experience. She liked to let them come to it at their own pace.

Getting them moving was the hard part. She had got to the pit early and chatted with some of them ahead of time, learning some of the names, picking out the ones who would work right away, identifying the difficult ones. One of the difficult ones was the little dark Italian man who was "in construction," he had said, whatever that meant; she had sat down next to him on purpose, and now she pulled him up next to her and said:

"All right. Let's start nice and slow and get some of the fug out of our heads. This is easy: we'll just reach."

She lifted her arms over her head, up on tiptoe, fingers upstretched. "High as you can go," she said. "Look up. Let's close our eyes and feel for the roof."

But what Marge was feeling for was the tensions and needs of the group. She could almost taste, almost smell, their feelings. What Ben Ittri, next to her, was feeling was embarrassment and fear. The

shaggy man who had come in late: a sort of numb pain, so much pain that it had drowned out his receptors. The fat girl, Dolores: anger. Marge could identify with that anger; it was man-directed anger.

She put the group through some simple bending energetics, or at least did with those who would cooperate. She had already taken a census of her mind. Not counting the three professionals, there were five in the group who were really with the kinetics. She supposed they were the volunteers, and probably they had had experience of previous sessions. The other eight, the ones she assumed were draftees, were a spectrum of all the colors of disengagement. The fat girl simply did not seem physically able to stand on tiptoes, though her anger carried her through most of the bending and turning; it was like a sack of cement bending, Marge thought, but she could sense the bones moving under the fat. The bent old black man who sat obstinately on the floor, regarding the creases on his trousers, was a different kind of problem; Marge had not been able to see how to deal with him.

She began moving around the room, calling out instructions. "Now bend sidewise from the waist. You can do it with your hands up like this, or you might be more comfortable with your hands on your hips. But see how far you can go. Left. Right. Left —"

They were actually responding rather well, considering. She stopped in front of a slight black youth in a one-piece Che Guevara overall. "It's fun if we do it together," she said, reaching out for his hands. He flinched away, then apologetically allowed her to take his hands and bend with him. "It's like a dance," she said, smiling, but feeling the tension in his arms and upper torso as he allowed himself unwillingly to turn with her. Marge was not used to that sort of response from males, except from homosexuals, or occasionally the very old ones who had been brought up under the Protestant ethic. He didn't seem to be either of those. "You know my name," she said softly. "It's Marge."

"Rufous," he said, looking away from her. He was acutely uncomfortable; reluctantly she let him go and moved on. She felt an old annoyance that these sessions would not allow her to probe really deeply into the hangups she uncovered, but of course that was not their basic purpose; she could only do that if the people themselves elected to work on that problem.

The other black man, the one who was so obdurately sitting on the floor, had not moved; Marge confronted him and said, "Will you get up and do something with me?"

For a moment she thought he was going to refuse. But then, with dignity, he stood up, took her hands and bent with her, bending left, bending right. He was as light as a leaf but strong, wire rather than straw. "Thank you," she said, and dropped his hands, pleased. "Now," she said to the group, "we're going to be together for quite a while, so let's get to know each other, please. Let's make a circle and put our arms around each other. Right up close! Close as you can get! All of us. Please?"

It was working out nicely, and Marge was very satisfied. Even the old black man was now in the circle, his arms looped around the shoulders of the fat girl on one side and a middle-aged man who looked like an Irish tenor on the other. The group was so responsive, at least compared to most groups in the first hour of their existence as groups, that for a moment Marge considered going right into the pool, or nonverbal communication — but no, she thought, that's imposing my will on them; I won't push it.

"All right, that's wonderful," she said. "Thank you all."

Tina said, "From here on, it's all up to you. All of you. There's tea and coffee and munch over there if anyone wants anything. Marge, thank you; that was fun."

"Anytime," called Marge, stretching her legs against the wall. "I mean that. If any of you ever want to work out with me, just say. Or if you see me doing anything and want to join in, please do."

"Now," said Tina, "if anybody wants to start introducing himself or talking about a problem, I, for one, would like to listen."

Introductions

The hardest thing to learn to do was wait.

Tina Wattridge worked at doing it. She pushed a throw pillow over to the floor next to the corner of a couch and sat on it, cross-legged, her back against the couch. Tina's opinion of Marge Klapper was colored by the fact that she had a granddaughter only seven or eight years younger than Marge, which, Tina was aware, led her to think of the therapist as immature; nevertheless, there was something in the notion that the state of the body controlled the state of the mind, and Tina let her consciousness seep into her toes, the tendons on the soles of her feet, her ankles, her knees, all the way up her body, feeling what they felt and letting them relax. It was good in itself, and it kept her from saying anything. If she waited long enough, someone would speak....

"Well, does anybody mind if I go first?"

Tina recognized the voice, was surprised and looked up. It was Jerry Fein. It was not against the rules for one of the pros to start, because there were no rules, exactly. But it was unusual. Tina looked at him doubtfully. She had never worked with him before. He was the plumpish kind of young man who looks older than he is; he looked about forty, and for some reason Tina was aware that she didn't like him.

"The thing is," said Dr. Fein, haunching himself backward on the floor so that he could see everyone in the group at once, "I do have a problem. It's a two-part problem. The first part isn't really a problem, except in personal terms, for me. I got a dose from a dear friend two months ago." He shrugged comically. "Like shoemaker's children that never have shoes, you know? I think we doctors get the idea somewhere in med school that when we get into practice we'll be exempt from diseases, they're only things that happen to patients. Well, anyway, it turned out to be syphilis, and so I had to get the shots and all. It's not too bad a thing, you know, but it isn't a lot of fun because there are these resistant strains of spirochetes around, and I had one of the toughest of them, Mary-Bet 13 it's called — so it didn't clear up overnight. But it is cleared up," he added reassuringly. "I mention this in case any of you should be worrying, I mean about maybe using the same drinking glass or something.

"But the part of the problem I want to throw in front of you is, why should anybody get syphilis in the first place? I mean, if there are any diseases in the world we could wipe out in thirty days from a standing start, syphilis and gonorrhea are the ones. But we don't. And I've been thinking about it. The trouble is people won't report themselves. They won't report their contacts even more positively. And they never, *never* think of getting an examination until they're already pretty sure they've got a dose. So if any of you can help me with this public health problem that's on my mind, I'd like to hear."

It was like talking into a tape recorder in an empty room; the group soaked up the words, but nothing changed in their faces or attitudes. Tina closed her eyes, half hoping that someone would respond to the doctor, half that someone else would say something. But the silence grew. After a moment the doctor got up and poured himself a cup of coffee, and when he sat down again his face was as blank as the others.

The man next to Tina stirred and looked around. He was young and extremely good-looking, with the fair hair and sharp-featured face of a Hitler Youth. His name was Stanwyck. Tina had negative feelings toward him, too, for some reason she could not identify; one of the things she didn't like about Jerry Fein was his sloppiness — he was wearing two shirts, one over the other, like a Sicilian peasant. One of the things she didn't like about Stanwyck was his excessive neatness; like the old black man, Bob Sanger, he was wearing a pressed business suit.

But Stanwyck didn't speak.

The fat girl got up, fixed herself a cup of tea with sugar and milk, took a handful of raisins out of a bowl and went back to her place on the floor.

"I think I might as well talk," said somebody at last. (Tina exhaled, which made her realize she had been holding her breath.)

It was the elderly black man, Sanger. He was sitting, hugging his knees to himself, and he stayed that way all the time he was talking. He did not look up but addressed his words to his knees, but his voice was controlled and carrying. "I am a volunteer for this group," he said, "and I think you should know that I asked to join because I am desperate. I am seventy-one years old. For more than forty years I have been the owner and manager of a dental supply-manufacturing company, Sanger Hygiene Products, of Fresno, California. I do not have any response to make to what was said by the gentleman before me, nor am I very sympathetic to him. I am satisfied that God's Word is clear on the wages of sin. Those who transgress against His commandments must expect the consequences, and I have no desire to make their foulness less painful for them. But mine is, in a sense, also a public health problem; so perhaps it is not inappropriate for me to propose it to you now."

"Name?" Tina murmured.

He did not look up at her, but he said, "Yes, Mrs. Wattridge, of course. My name is Bob Sanger. My problem is that halidated sugar and tooth-bud transplants have effectively depleted the market for my products. As you all may be aware, there simply is not a great demand for dental therapy any more. What work is done is preventive and does not require the bridges and caps and plates we make in any great volume. So we are in difficulties such that, at the present projection, my company will have crossed the illiquidity level in at most twelve months, more likely as little as four; and my problem is to avoid bankruptcy."

He rubbed his nose reflectively against one knife-creased knee and added, "More than three hundred

people will be out of work if I close the plant. If you would not care to help me for my sake, perhaps you will for theirs."

"Oh, Bob, cut the crap," cried the fat girl, getting up for more raisins. "You don't have to blackmail us!"

He did not look at her or respond in any way. She stood by the coffee table with a handful of raisins for a moment, looking around, and then grinned and said:

"You know, I have the feeling I just volunteered to go next."

She waited for someone to contradict her, or even to agree with her. No one did, but after a moment she went on. "Well, why not? My name is Dolores Belli. That's bell-*eye*, not bell-*ee*. I've already heard all the jokes and they're not too funny; I know I'm fat, so what else is new? I'm not sensitive about it," she explained. "But I *am* kind of tired of the subject. Okay. Now about problems. I'll help any way I can, and I do want to think about what both of you have said, Jerry and Bob. Nothing occurs to me right now, but I'll see if I can make something occur, and then I'll be back. I don't have any particular problem of my own to offer, I'm afraid. In fact, I wouldn't be here if I hadn't been drafted. Or truthfully," she said, smiling, "I do have a problem. I missed dinner. I'd like to see what the food is like here. Is that all right?"

When no one volunteered an answer, she said sharply, "Tina? Is it all right?"

"It's up to you, Dolores," said Tina gently.

"Sure it is. Well, let's get our feet wet. Anybody want to join me?"

A couple of the others got up, and then a third, all looking somewhat belligerent about it. They paused at the door, and one of them, a man with long hair and a Zapata mustache, said, "I'll be back, but I really am starving. My name is David Jaretski. I do have a problem on my mind. It's personal. I don't seem to be able to keep my marriage together, although maybe that's because I don't seem to be able to keep my life together. I'll talk about it later." He thought of adding something else but decided against it; he was still feeling a little stoned and not yet ready either to hear someone else's troubles or trust the group with his own.

The man next to him was good-looking in the solid, self-assured way of a middle-aged Irish tenor. He said, in a comfortable, carrying voice, "I'm Bill Murtagh. I ran for Congress last year and got my tail whipped, and I guess that's what I'll be hoping to talk to you folks about later on."

He did not seem disposed to

add to that, and so the other woman who had stood up spoke. Her blonde schoolgirl hair did not match the coffee-and-cream color of her skin or the splayed shape of her nose, but she was strikingly attractive in a short jacket and flared pants. "My name's Barbara Devereux," she said. "I'm a draftee. I haven't figured out a problem yet." She started to leave with the others, then turned back. "I don't like this whole deal much," she said thoughtfully. "I'm not sure I'm coming back. I might prefer going into the caves."

The Cast of Characters

In Terre Haute, Indiana, at the Headquarters of SAD, the Social Affairs Department, in the building called the Heptagon, Group 9S-114 had been put together with the usual care. The total number was 16, of whom three were professional resource people, five were volunteers and the remainder selectees. Nine were male, seven female. The youngest had just turned 18; the oldest, 71. Their homes were in eight of the 54 states; and they represented a permissible balance of religions, national origins, educational backgrounds and declared political affiliations.

These were the people who made up the 114th group of the year:

BELLI, Dolores. 19. White female, unmarried. Volunteer (who regretted it and pretended she had been drafted; the only one who knew this was untrue was Tina Wattridge, but actually none of the others really cared). As a small child her father had called her Dolly-Belly because she was so cutely plump. She wanted very much to be loved. The men who appealed to her were all-American jocks, and none of them had ever shown the slightest interest in her.

DEL LA GARZA, Caspar. 51. White male. Widower, no surviving children. Draftee. In Harlingen, Texas, where he had lived most of his life, he was assistant manager of an A&P supermarket, a volunteer fireman and a member of the Methodist Church. He had few close friends, but everyone liked him.

DEVEREUX, Barbara. 31. Black female, unmarried. Draftee. Although she had been trained as an architect and had for a time been employed as a fashion artist, she was currently working for a life insurance agent in Elgin, Illinois, processing premiums. With any luck she would have had seven years of marriage and at least one child by now, but the man she loved had been killed serving with the National Guard during the pollution riots of the '80s.

FEIN, Gerald, M.D. 38. White male. Professional resource person,

now in his third problem marathon. Jerry Fein was either separated or partially married, depending on how you looked at it; he and his wife had opted for an open marriage, but for more than a year they had not actually lived in the same home. Still, they had never discussed any formal change in the relationship. His wife, Aline, was also a doctor — they had met in medical school — and he often spoke complimentarily of her success, which was much more rapid and impressive than his own.

GALIFINIAKIS, Rose. 44. White female, married, no children. She had been into the Christ Reborn movement in her twenties, New Maoism in her thirties and excursions into commune living, Scientology and transcendental meditation since then, through all of which she had maintained a decorous home and conventional social life for her husband, who was an accountant in the income tax department of the state of New Mexico. She had volunteered for the problem marathon in the hope that it would be something productive and exciting to do.

ITTRI, Benjamin. 32. White male. Draftee. Ittri was a carpenter, but so was Jesus of Nazareth. He thought about that a lot on the job.

JARETSKI, David. 33. White male, listed as married but de facto wifeless, since Lara had run off with a man who traveled in information for the government. Draftee. David was a sculptor, computer programmer and former acid head.

JEFFERSON, Rufous, III. 18. Black male, unmarried. Draftee. Rufous was studying for the priesthood in the Catholic Church in an old-rite seminary which retained the vows of celibacy and poverty and conducted its masses in Latin.

KLAPPER, Marjorie, B.A., Mem. Am. Guild Ther. 24. White female, separated. Professional resource person. Five weeks earlier, sailing after dark with a man she did not know well but really liked, Marge Klapper had decided not to bother with anything and see if she happened to get pregnant. She had, and was now faced with the problem of deciding what to do about it, including what to say to her husband, who thought they had agreed to avoid any relationship with anybody, including each other, until they worked things out.

LIM, Felice. 30. White female, married, one child. Technically a draftee, but she had waived exemption (on grounds of dependent child at home — her husband had vacation time coming and had offered to take care of the baby). Felice Lim had quite a nice natural soprano voice and had wanted to be

an opera singer, but either she had a bad voice teacher or the voice simply would not develop. It was sweet and true, but she could not fill a hall, and so she got married.

MENCHEK, Philip. 48. White male, married, no children. Draftee. Menchek was an associate professor of English Literature in a girl's college in South Carolina and rather liked the idea of the problem marathon. If he hadn't been drafted, he might have volunteered, but this way there was less chance of a disagreement with his wife.

MURTAGH, William. 4S. White male, married (third time), 5 children (aggregate of all marriages). Volunteer. Murtagh, when a young college dropout who called himself Wee Willie Wu, had been a section leader in the Marin County Cultural Revolution. It was the best time of his life. His original True Maoists had occupied a nine-bedroom mansion on the top of a mountain in Belvedere, overlooking the Bay, with a private swimming pool they used for struggling with political opponents and a squash court for mass meetings. But they were only able to stay on Golden Gate Avenue for a month. Then they were defeated and disbanded as counterrevolutionaries by the successful East Is Red Cooperative Mao Philosophical Commune, who had helicopters and armored cars. Expelled and homeless, Murtagh had dropped out of the revolutionary movement and back into school, got his degree at San Jose State and became an attorney.

SANGER, Robert, B.Sc., M.A. 71. Black male. Wife deceased, one child (male, also deceased), two grandchildren. Volunteer. Bob Sanger's father, a successful orthodontic dentist in Parsippany, New Jersey, celebrated his son's birth, which happened to occur on the day Calvin Coolidge was elected to his own full term as President, by buying a bottle of bootleg champagne. It was a cold day for November, and Dr. Sanger slipped on the ice. He dropped the bottle. It shattered. A week later the family learned that everyone drinking champagne out of that batch had gone blind, since it had been cooked up out of wood alcohol, ethylene glycol, Seven-Up and grape squeezings. They nicknamed the baby "Lucky Bob" to celebrate. Lucky Bob was, in fact, lucky. He got his master's degree just when the civil rights boom in opportunities for black executives was at its peak. He had accumulated seed capital just when President Nixon's Black Capitalism program was spewing out huge hunks of investment cash. He was used to being lucky, and the death of his industry, coming at the end of his own long life, threw him more than it might have otherwise.

STANWYCK, Devon. 26. White male, unmarried. Volunteer. Stanwyck was the third generation to manage the family real estate agency, a member of three country clubs and a leading social figure in Bucks County, Pennsylvania. When he met Ben Ittri, he said, "I didn't know carpenters would be at this marathon." His grandfather had brought his father up convinced that he could never do anything well enough to earn the old man's respect; and the father, skills sharpened by thirty years of pain, did the same to his son.

TEITLEBAUM, Khanya. 32. White female, divorced, no children. Draftee. Khanya Teitlebaum was a loving big Malemute of a woman, six feet four inches tall and stronger than any man she had ever known. She was an assistant personnel manager for a General Motors auto-assembly plant in an industrial park near Baton Rouge, Louisiana, where she kept putting cards through the sorter, looking for a man who was six feet or more and unmarried.

WATTRIDGE, Albertina. 62. White female, married, one child, one grandchild. Professional resource person. A curious thing about Tina, who had achieved a career of more than thirty years as a group therapist and psychiatric counselor for undergraduates at several universities before joining the SAD problem-marathon staff, was that she had been 28 years old and married for almost four before she realized that every human being had a navel. Somehow, the subject had never come up in conversation, and she had always been shy of physical exposure. At first she had thought her belly-button a unique and personal physical disfigurement. After marriage she had regarded it as a wondrous and fearful coincidence that her husband bore the same blemish. It was not until her daughter was born that she discovered what it was for.

David Again

It was weird never knowing what time it was. It didn't take long to lose all connection with night and day; I think it happened almost when I got off the elevator. Although that may have been because of the morning glory seeds.

It was sort of like a six-day bash, you know, between exams and when you get your grades, when no one bothers to go to classes but no one can afford to leave for home yet. I would be in the pool with the girls, maybe. We'd get out, and get something to eat, and talk for a while, and then Barbie would yawn, and look at the bare place on her wrist the way she did, and say, "Well, how about if we get a little sleep?" So we'd go into one of the

sleeping rooms and straighten out our bags and get in. And just about then somebody else would sit up and stretch and yawn, and poke the person next to him. And they'd get up. And a couple of others would get up. And pretty soon you'd smell bacon and eggs coming down the dumbwaiter, and then they'd all be jumping and turning with Marge Klapper just as you were dropping off.

Barbie and Dolly-Belly and I stayed tight with each other for a long time. We hadn't picked each other out, it just happened that way. I felt very self-conscious that first night in the common room, still flying a little and expecting everybody could see what I was doing. It wasn't that they were so sexually alluring to me. There were other women in the group who, actually, were more my type, a girl from New Mexico who had that long-haired, folk-singer look, a lot like Lara. Even Tina. I couldn't figure her age very well. She might easily have been fifty or more. But she had a gorgeous teen-age kind of figure and marvelous skin. But I wasn't motivated to go after them, and they didn't show any special interest in me.

Barbie was really very good-looking, but I'd never made it with a black girl. Some kind of leftover race prejudice, which may come from being born in Minnesota among all those fair-haired WASPs, I suppose. Whatever it was. I didn't think of her that way right at first, and then after that there were the three of us together almost every minute. We kept our sleeping bags in the same corner, but we each stayed in our own.

And Dolly-Belly herself could have been quite pretty, in a way, if all that fat didn't turn you off. She easily weighed two hundred pounds. There was a funny thing about that. I had inside my head an unpleasant feeling about both fat women and black women, that they would smell different in a repulsive way. Well, it wasn't true. We could smell each other very well almost all the time, not only because our sleeping bags were so close together but holding each other, or doing nonverbal things, or just sitting back to back, me in the middle and one of the girls propped on each side of me, in group, and all I ever smelled from either of them was Tigress from Barbie and Aphrodisia from Dolly-Belly. And yet in my head I still had that feeling.

There was no time, and there was no place outside the group. Just the sixteen of us experiencing each other and ourselves. Every once in a while somebody would say something about the outside world. Willie Murtagh would wonder out loud what the Rams had done. Or Dev Stanwyck would come by with

Tina and say, "What do you think about building underground condominium homes in abandoned strip mines, and then covering them over with landscaping?" We didn't see television; we didn't know if it was raining or hot or the world had come to an end. We hadn't heard if the manned Grand Tour fly-by had anything to say about the rings of Saturn, which it was about due to be approaching, or whether Donnie Osmond had announced his candidacy for the presidency. We, or at least the three of us, were living in and with each other, and about anything else we just didn't want to know.

Fortunately for the group, most of the others were more responsible than we were. Tina and Dev would almost always be in the problem pit, hashing over everybody's problems all the time. So would Bob Sanger, sitting by himself in one of the top rows, silent unless somebody spoke to him directly, or to his problem, or rarely when he had a constructive and well-thought-out comment to offer. So would Jerry Fein and that big hairy bird, Khanya. Almost everybody would be working hard a lot of the time, except for Willie Murtagh, who did God knows what by himself but was almost never in sight after the three of us decided we didn't like him much, that first night, and the young black kid, Rufous, who spent a lot of his time in what looked like meditation but I later found out was prayer. And the three of us.

I don't mean we copped out entirely. Sometimes we would look in on them. Almost any hour there would be four or five of them in the big pit, with the chairs arranged in concentric circles facing in so that no matter where you sat you were practically looking right in the face of everyone else. We even took part. Now and then we did. Sometimes we'd even offer problems. Barbie got the idea of making them up, like, "I'm worried," she said once, "that the Moon will fall on us. Could we build some kind of a big net and hang it between mountains, like?" That didn't go over a bit. Then Dolly tried a sort of complicated joke about how the C.I.A. should react if Amazonia intervened in the Ecuadorian elections, with the U.S.I.S. parachuting disk jockeys into the Brazilian bulge to drive them crazy with concentrated-rock music. I didn't like that a bit; the U.S.I.S. part made me think of Lara's boy friend, which made me remember to hurt. I didn't want to hurt.

I guess that's why we all three of us stayed with made-up problems, and other people's problems: because we didn't want to hurt. But I didn't think of that at the time.

"Of course," Dolly-Belly said one time, when she and I were rocking Barbie in the pool, "we're not going to get out of here until Joe Good up there in the Heptagon marks our papers and says we pass."

I concentrated on sliding Barbie headward, slowing her down, sliding her back. The long blonde hair streamed out behind her when she was going one way, wrapped itself around her face when she was going the other. She looked beautiful in the soft pool light, although it was clear, if it had needed to be clear, that she was a natural blonde. "So?" I said.

Barbie caught the change in rhythm or something, opened her eyes, lifted one ear out of the water to hear what we were saying.

"So what's the smart thing for us to do, my David? Get down to work and get out faster? Or go on the way we're going?"

Barbie wriggled off our hands and stood up. "Why are we worrying? They'll let the whole group go at the same time anyway," she said.

Dolly-Belly said sadly, "You know, I think that's what's worrying me. I kind of like it here. Hey! Now you two swing me!"

Preliminary Reports

The one part of the job that Tina didn't like was filing interim reports with the control monitors up at the old radio-telescope computation center. It seemed to her sneaky. The whole thing about the group was that it built up trust within itself, and the trust made it possible for the people to speak without penalty. And every time Tina found the computer terminals unoccupied and dashed in to file a report she was violating that trust.

However, rules were rules. Still dripping from the pool, where nearly all the group were passing each other hand to hand down a chain, she sat before the console, pulled the hood over her fingers, set the machine for blind-typing and began to type. Nothing appeared on the paper before her, but the impulses went out to the above-ground monitors. Of course, with no one else nearby that much secrecy was not really essential, but Tina had trained herself to be a methodical person. She checked her watch, pinned inside her bra — another deceit — and logged in:

DAY 4 HOUR 03S2. WATTRIDGE reporting. INTERACTION good, CONSENUALITY satisfactory. No incapacitating illnesses or defections.

Seven individuals have stated problem areas of general interest, as follows:

DE LA GARZA. Early detection of home fires. Based on experience as a volunteer fireman

(8 years), he believes damange could be reduced "anyway half" if the average time of reporting could be made ten minutes earlier. GROUP proposed training in fire detection and diagnosis for householders.

(That had been only a few hours before, when most of the group were lying around after a session with Marge's energetics. The little man had really come to life then. "See, most people, they think a fire is what happens to somebody else; so when they smell smoke, or the lights go out because wires have melted and a fuse blows, or whatever, they spend twenty minutes looking for cigarettes burning in the ashtrays, or putting new fuses in. And then half the time they run down to the kitchen and get a pan of water and try to put it out themselves. So by the time we get there it's got a good start, and there's three, four thousand dollars just in water damage getting it out, even if we can save the house.")

FEIN. National or world campaign to wipe out VD. States that failure to report disease and contacts is only barrier to complete control of syphilis and gonorrhea. GROUP proposal for free examinations every month, medallion in the form of bracelet or necklace charm to be issued to all persons disease-free or accepting treatment.

(That one had started as a joke. That big girl, Khanya, said, "What you really need is a sort of kosher stamp that everybody has to wear." And then the group had got interested, and the idea of issuing medallions had come out of it.)

LIM. Part-time professional assistance for amateur theater and music groups. States that there are many talented musicians who cannot compete for major engagements but would be useful as backup for school, community or other music productions. Could be financed by government salaries repaid from share of admissions.

MURTAGH. Failure of electorate to respond to real issues in voting. Statement of problem as yet unclear; no GROUP proposals have emerged.

SANGER. Loss of market for dental supplies. GROUP currently considering solutions.

STANWYCK. Better utilization of prime real estate by combining function. GROUP has proposed siting new homes underground, and/or building development homes with flat joined roofs with landscaping on top. Interaction continuing.

(Tina wanted to go on with Dev Stanwyck's problem, because she was becoming aware that she cared

a great deal about solving problems for him, but her discipline was too good to let her impose her personal feelings in the report. And anyway, Tina did not believe that the problem Dev stated was anywhere near the real problems he felt.)

TEITLEBAUM. Stated problem as unsatisfactory existing solitaire games. (Note: There is a personality problem here presumably due to unsatisfactory relationships with other sex.) GROUP proposed telephone links to computer chess-, checker- or card-playing programs, perhaps to be furnished as a commercial service of phone company.

PERSONALITY PROBLEMS exhibited by nine group members, mostly marital, career or parental conflicts. Some resolution apparent.

TRANSMISSION ENDS.

No one had disturbed Tina, and she pushed the hood away from the keyboard and clicked off the machine without rising. She sat there for a moment, staring at the wall. The group was making real progress in solving problems, but it seemed to her strange that it also appeared to have generated one in herself. All therapists had blind spots about their own behavior. But even a blind person could see that Tina Wattridge was working herself in pretty deep with a boy not much too old to be her grandchild, Devon Stanwyck.

David Cathecting the Leader

One time when we were just getting ready to go to sleep, we went into the room we liked — not that there was much difference between them, but this one they had left the walls pretty natural, and there were nice transparent waterfally rock formations that looked good with the lights low — and Tina and Dev Stanwyck were sitting by themselves in a corner. It seemed as though Dev was crying. We didn't pay much attention, because a lot of people cried, now and then, and after a while they went out without saying anything, and we got to sleep. And then, later on, Barbie and I were eating some of the frozen steaks and sort of kidding Dolly-Belly about her fruit and salads, and we heard a noise in the shower, and I went in, and there were Tina and Dev again. Only this time it looked as though Tina was crying. When I came back I told the girls about it. It struck me as odd; Tina letting Devon cry was one thing, Devon holding Tina while she was crying was another.

"I think they're in love," said Dolly-Belly.

"She's twice as old as he is," I said.

"More than that, for God's sake. She's pushing sixty."

"And what has that got to do with it, you two Nosy Parkers? How does it hurt you?"

"Peace, Barbie," I said. "I only think it's trouble. You'd have to be blind not to see she's working herself in pretty deep."

"You've got something against being in love?" Barbie demanded, her brown eyes looking very black.

I got up and threw the rest of my "light meal, steak" away. I wasn't hungry any more. I said, "I just don't want them to get hurt."

After a while Dolly said, "David. Why do you assume being in love is the same as being hurt?"

"Oh, cut it out, Dolly-Belly! She's too old for him, that's all."

Barbie said, "Who wants to go in the pool?"

We had just come out of the pool.

Dolly said, "David, dear. What kind of a person was your wife?"

I sat down and said, "Has one of you got a cigarette?" Barbie did, and gave it to me. "Well," I said, "she looked kind of like Felice. A little younger. Blue eyes. We were married six years, and then she just didn't want to live with me any more."

I wasn't really listening to what I was saying, I was listening to myself, inside. Trying to diagnose what I was feeling. But I was having trouble. See, for a couple of weeks I'd always known what I felt about Lara, because I hurt. It was almost like an ache, as though somebody were squeezing me around the chest. It was a kind of wriggly feeling in my testicles, as though they were gathering themselves up out of harm's way, getting ready for a fight. It was as if I was five years old and somebody had stolen my tricycle. All of those things. And the thing was that I could feel them all, every one, but I suddenly realized I hadn't *been* feeling them. I had forgotten to hurt at all, a lot of the time.

I had not expected that would happen.

Along about that time, I do not know if there was a causal relationship, I became aware of the fact that I was feeling pretty chipper pretty much of the time, and I began to like it. Only sometimes when I was trying to get to sleep, or when I happened to think about going back to Minnesota and remembered there was nobody there to go back to, I hurt. But I could handle it because I knew it would go away again. The cure for Lara was Barbie and Dolly-Belly, even though I had not even kissed either of them, except in a friendly good-night way.

Time wore on, we could only tell how much by guessing from things like the fact that we all ran out of cigarettes. Dolly's were the last to go. She shared with us, and then

she complained that Barbie was smoking them twice as fast as she was, and I was hitting them harder than that; she'd smoke two or three cigarettes, and I'd have finished the pack. It was our mixed-up time sense, maybe? Then Rufous came and shared a meal with us once and heard us talking about it, and later he took me aside and offered to trade me a carton for a couple of bananas. I grabbed the offer, ordered bananas, picked them off the dumbwaiter, handed them to Rufous, took the cigarettes and was smoking one before it occurred to me that he could have ordered bananas for himself if he'd wanted them. Barbie said he knew that, he just wanted to give me something, but he didn't want me to feel obligated.

We were all running out of everything we'd brought in with us. There wasn't any dope. Dolly-Belly had brought in some grass, and I guess some of the others had too, but it was gone. Dolly smoked hers up all by herself the first night, or anyway the first time between when we decided we were sleepy and when we got to sleep finally, before we were really close enough to share.

We were all running out, except Willie the Weeper. He had cigarettes. I saw them. But he didn't smoke them. He also had a pocket flask that he kept nipping out of. And he kept ordering fruit off the dumbwaiter, which surprised me when I thought about it because I didn't see him eating any. "He's making cave drippings somewhere," Dolly told me.

"What's cave drippings?"

"It's like when you make homemade wine. Only you drink it as soon as it ferments. Any kind of fruit will do, they say."

"How do you know so much about it if you've never been here before?"

"Oh, screw you, David, are you calling me a liar?"

"No. Honestly not, Dolly-Belly. Get back to cave drippings."

"Well. It's kind of the stuff you made when you're in the Peace Corps in the jungle and you've run out of beer and hash. I bet you a thousand dollars Willie's got some stewing away somewhere. Only I don't smell it." And she splashed out of the pool and went sniffing around the connecting caves, still bare. There was a lot of Dolly-Belly to be bare, and quite a few of the people didn't care much for group nudity even then. But she didn't care.

Out of all the people in our group, sixteen of us altogether, Willie was about the only one I didn't really care for. I mean, I didn't like him. He was one of those guys my father used to bring home for dinner when I was little. So very

said Bob politely. "As to the notion of getting some wealthy person to establish a foundation, I know of no such person. Also the matter of stockpiling supplies has been anticipated. It is this that has kept us going since '92."

Rufous Jefferson looked up from his worry beads long enough to say, "I don't like that idea of making missiles, Mr. Sanger."

"It wouldn't work," said Willie the Weeper positively. "I know. You couldn't switch over *and* get the government back in the missile business in time anyway."

"Besides," said Dolly-Belly, "everybody's got plenty of missiles put away already. No, forget it, fellows, we've bombed out except for one thing. It's your only chance, Bob. You've got to go for that surgical stuff. *And* that self-warming jigger. You don't know, Bob, you're not a woman, but I swear to God every time I go to my gynecologist I leap right up the wall when he touches me with that thing. Brrr!"

"Dumb," said Tina affectionately. "Dolores, dear, I bet you go to a man gynecologist."

"Well, sure," said Dolly defensively. "It's kind of a sex thing with me, I don't like to have women messing me around there."

"All right, but if you went to a woman doctor she'd know what it feels like. How could a man know? *He* never gets that kind of an examination."

Bob Sanger uncrossed his legs and recrossed them the other way. "Excuse me," he said with a certain amount of pain in his voice. "I am afraid I'm not quite following what you are saying."

Tina said with tact, "It's for vaginal examinations, Bob. In order to make a proper examination they use a dilator, which is kept sterile, of course, so it has to be metal. And it's cold. *My* doctor keeps the sterile dilators in a little jar next to an electric light so they're warm...but she's a woman. She knows what it feels like. Long ago, when I was pregnant, I went to a male obstetrician, and it's just like they say, Bob. You jump. You really do. A self-warming dilator would make a million dollars."

Sanger averted his eyes. His face seemed darker than usual; perhaps he was blushing. "It is an interesting idea," he said, and then added reluctantly, "but I'm afraid there are some difficulties. I can't quite see a place for it in our product line. Self-warming, you say? That would make them quite expensive, and perhaps hard to sterilize, as well. Let me think. I can envision perhaps marketing some sort of little cup containing a sterile solution maintained at body temperature by a thermostat. But would doctors buy it? Assuming we were able to persuade them of the importance of it — and I accept your word, ladies," he added hastily. "Even so. Why wouldn't a doctor just keep them by an electric light, as Tina's does?"

"Come on, Bob. Don't you have a research department?" Willie demanded.

"I do, yes. What I don't have is time. Still it could have been a useful addition to our line, under other circumstances, I am sure," Bob said politely, once again addressing the crease in his trousers.

Then nobody said anything for a while until Tina took a deep breath, let go of Dev Stanwyck's hand and stood up. "Sorry, Bob," she said gently. "We'll try more later. Now how about the pool?"

And the group dispersed, some yelling and stripping off their clothes, and slapping and laughing as they headed for the pool chamber, one or two to eat, Bob Sanger remaining behind, tossing a dumbbell from hand to hand and looking angrily at his kneecap, left alone.

David Cathecting the Group

They keep the pool at blood temperature, just like one of Tina's thingumabobs. As, in spite of everything, the walls stay cold — I suppose because of the cold miles and miles of rock behind them — it stays all steamy and dewy in there. And the walls are unfinished, pretty much the way God left them when he poked the caves out of the Puerto Rican rock. Some places they look like dirty green mud, like the bottom of a creek. Some places they look like diamonds. There is one place that is like a frozen waterfall, and one like icicles melting off the roof; and when they built the pool and lighted it, they put colored lights behind the rocks in some places, and you can switch them to go on and off at random. We liked that a lot. We went racing in, and Dolly-Belly pushed me in right on top of Barbie and went to turn on the lights, and then she came leaping like a landslide into the pool almost on top of both of us. Half the water in the pool came surging out, it looked like. But it all drains right back and gets churned around some way to kill the bugs and fungi, and so we jumped and splashed most of it out again and yelled and dived and then settled down to just holding each other, half drowsing, until the pool got too crowded and we felt ourselves being pushed into a corner and decided to get out.

We put some clothes on and sort of stood in the corridor, between the pool and the showers, trying to make up our minds what to do.

"Want to get some sleep?"

Barbie asked, but not very urgently. Neither of us said yes.

"How about eating something?" I offered.

Dolly-Belly said politely, "No thanks. I'm not hungry now." I found one of Rufous the Third's cigarettes and we passed it around, trying to keep it dry although the girls' hair kept dripping on it, and then we noticed that we were in front of the door that opens into the empty caves. And we realized we had all been looking at it, and then at each other, and then at the door again.

So Dolly tried the knob, and it turned. I pushed on the door, and it opened. And Barbie stepped through, and we followed.

It closed behind us.

We were alone in the solid dark and cold of the caves. A little line of light ran around three sides of the door we had just come through; and if we listened closely, we could hear, very faintly, an occasional word or sound from the people behind it. That was all. Outside of that, nothing.

Barbie took one of my hands. I reached out and took Dolly's with the other.

We stood silently for a moment, waiting to see if our eyes would become dark-adapted, but it was no use. The darkness was too complete. Dolly-Belly was twisting around at the end of our extended arms' length, and after a moment she said, "I can feel along a wall here. There's a kind of a rope. Watch where you step."

Someone had put duckboards down sometime. Although we couldn't see a thing, we could feel what we were doing. I had socks on; the girls were barefoot. Since I had one hand in the hand of each of them, I couldn't guide myself by tbe rope or the wall, as Barbie and Dolly could, but we went very slowly.

We had done a sensitivity thing a while earlier, two sleeps and about eleven meals earlier, I think, blindfolding each of us in turn and letting ourselves be led around to smell and hear and feel things. It was like that. In the same way, none of us wanted to talk. We were extending our other senses, listening, and feeling, and smelling.

Then Dolly-Belly stopped and said, "End of the rope." She disengaged her fingers and bent down. Barbie came up beside me, and I slipped my hand free of hers and around her waist.

Dolly said, "I think there are some steps going down. Be careful, hear? It's scary."

I let go of Barbie, passed myself in front of Dolly, felt with my toes, knelt down and explored with my fingertips. It was queasy, all right. I felt as though I were falling over forward, not being able to see

where I might be falling. There were wooden steps there, all right. But how far down they went and what was at the end of them and how long they had been rotting away there and what shape they were in, I could not tell.

So we juggled ourselves around cautiously and sat on the top step, which was just wide enough for the three of us, even Dolly-Belly. We listened to the silence and looked at the emptiness, until Barbie said suddenly?

"I hear something."

And Dolly said, "I smell something. What do you hear?"

"What do you smell?"

"Sort of like vinegar."

"What I hear is sort of like somebody breathing."

And a light flared up at us from the bottom of the stairs, blinding us by its abruptness although it was only a tiny light, and the voice of Willie the Weeper said, "Great balls o' fahr, effen 'tain't the Revenooers come to bust up mah li'l ol' still!"

I flung my bead away from the light and yelled, "Willie, for Christ's sake! What are you doing here?"

"Dumb question, my David," said Barbie beside me. "Don't you remember about cave drippings? Willie's got himself a supply of home-brew out here."

"Right," said Willie benevolently. "Thought I recognized your voice, my two-toned sepia queen. Say, how are your roots doing?"

Barbie didn't say a word, and neither did any of the rest of us. After a moment Willie may have felt a little ashamed of himself, because he flicked off his light. "I've only got the one battery," he explained apologetically from the darkness. "Oh, wait a minute. Take a look." And he turned on the little penlight again, shined it at arm's length on himself, and then against the wall, where he had four fruit bowls covered by dinner plates and a bunch of paper cups. "I thought you might like to see my little popskull plant," he said pridefully, turning the light off again. "Care for a shot?"

"Why not?" said Barbie, and we all three eased ourselves down to the lower steps and accepted a paper cup of the stuff, sharing it among us.

"Straining it was the hard part," said Willie. "You may notice a certain indefinable piquancy to the bouquet. I had to use my underwear."

Barbie, just swallowing, coughed and giggled. "Not bad, Willie. Here, try it, David. It's a little bit like Dutch gin."

To me it tasted like the liquid that accumulates in the bottom of the vegetable bins in a refrigerator, and I said so.

"Right, that's what I mean. My compliments to the vintner, Willie. Do you come here a lot?"

"No. Oh, well, maybe, I guess so. I don't like being hassled around in there." I couldn't see his face in the darkness, but I could imagine it: angry and defensive. So, to make it worse, I said,

"I thought you volunteered for this."

"Hell! I didn't know it would be like this."

"What did you think it would be like, Willie?" Barbie asked. But her voice wasn't mocking.

He said, with pauses, "I suppose, in a way....I suppose I thought it would be kind of like the revolution. I don't suppose you remember. You're probably too young, and anyway it was mostly on the West Coast. But we were all together then, you know....I mean, even the ones we were fighting and struggling were part of it. Chaos, chaos, and out of it came some good things. We struggled the chief of police of San Francisco in the middle of Market Street, and afterwards he was all bruised and bleeding, but he thanked me."

We didn't say anything. He was right, we were too young to have been involved except watching it on TV, where it seemed like another entertainment.

"And then," said Willie, "nothing ever went right." And he didn't say anything more for a long time, until Dolly-Belly said:

"Can I have another shot of drippings?"

And then we just sat for a while, thinking about Willie, and finally not thinking about anything much. I didn't feel blind any more, even with the light off. Just that bit from Willie's flash had given me some sense of domain. I could remember the glimpse I had got: the flat, unreflective black wall off to my right, just past Dolly-Belly, the wooden steps down (there had been nine of them), the duckboards along the rough shelf above us, the faint occasional drip of water from the bumps in the cave roof over us, the emptiness off to the left past where the light from Willie's penlamp did any good, Willie's booze factory down below. With a girl on either side of me I didn't even feel cold, except for my feet, and after a while Willie put his hand on one of them. It felt warm and I liked it, but I heard myself saying, "You've got the wrong foot, Willie. Barbie's on my left, Dolly's on my right."

After a moment he said, "I knew it was yours. I'm already holding one of Dolly's." But he took it away.

Barbie said thoughtfully, "If you'd been a voter in your district, Willie, who would you have voted for?"

"Do you think I haven't asked myself that?" he demanded. "You're right. I would have voted for Tom Gdansk."

Dolly said, "It's time for a refill, Willie friend." And we all churned around getting our paper cups topped off and readjusting ourselves and when Willie prudently turned the penlight off again, we were all sitting together against the wall, touching and drinking, and talking. Willie was doing most of the talking. I didn't say much. I wasn't holding back; it was just that I had had the perception that it was more important for Willie to talk than for me to respond. I let the talk wash over me. Time slowed and shuddered to a stop.

It came to me that we four were sitting there because it was meant from the beginning of time that we should be sitting there, and that sitting there was the thing and the only thing that we were ordained to do. My spattered statue for the library? It didn't matter. It was in a different part of reality. Not the part we four were in just then. Willie's worries about being not-loved? It mattered that he was telling us about it (he was back to his third birthday, when his older brother's whooping cough had canceled Willie's party), but it didn't matter that it had happened. Dolly's fatness? *N'importe.* Barbie's fitful soft weeping, over she never said what? *De nada.* Lara leaving me for the U.S.I.S. goon? *Machts nicht*...well, no. That did amount to something real and external. I could feel it working inside me.

But I was not prepared to let it interfere with the groupness of our group, which was a real and immanent thing in itself. After a while, Dolly began to hum to herself. She had a bad, reedy voice, but she wasn't pushing it, and it fitted in nicely behind Willie's talking and Barbie's weeping. We eased each other, all four of us. It must have been in some part Willie's terrible foul brew, but it could not have been all that; it was weak stuff and tasted so awful you could drink it only one round at a time. It was, in some ways, the finest time of my life.

"Time," I said wonderingly. "And time, and time, and all of the kinds of time." I don't suppose it meant anything, but it seemed to at that — yes. At that time. And for a time we talked timelessly about time, which, in my perception, had the quality of a mobile or a medallion or a coffee-table book, in that it was something one discussed for its pleasant virtues but not something that constrained one.

Except that there too there was some sort of inner activity, like stomach rumbling, going on all the time.

While we were there, what was happening in those external worlds we had left? In the world in the caves behind us? Had the group been judged and passed and discharged while we were gone? If it had, how would we ever know?

But Barbie said (and I had not known I had asked her, or spoken out loud) that that was unlikely because, as far as she could see, our group had done damn-all about solving any problems, especially its own, and if we were to be excused only after performance, we had all the performance yet to perform. Everybody knew the numbers. Most groups got out in some three weeks. But what was three weeks? Twenty-one sleeps? But we slept when we chose, and no two of us had exactly the same number. Sixty-three meals? Dolly had stopped eating almost entirely. How could you tell? Only by the solutions of problems, maybe. If you knew what standards were applied, and who the judges were. But I could see little of that happening, like Barbie, like all of us, I was still trapped in my own internal problems that, even there, came funneling in by some undectable pipeline from that larger external world beyond the caves. And I had solved no part of them. Lara was still gone and would still be gone. Whatever time it was in Djakarta, she was there. Whatever was appropriate to that time, she was doing, with her U.S.I.S. man and not with me, for I was not any part of her life and never would be again. She probably never thought of me, even. Or if she did, only with anger. "I feel bad about the anger," I said out loud, only then realizing I had been talking out loud for some time, "because I earned it richly and truly. I own it and acknowledge it as mine."

"So do you want to do anything about it?" asked somebody, Dolly I think, or maybe Willie.

I considered that for a timeless stretch. "Only to tell her about it," I said finally, "to tell her what's true, that I earned it."

"Do you want her back?" asked Willie. (Or Barbie.)

I considered that for a long time. I don't know whether I ever answered the question, or what I said. But I began to see what the answer was, at least. Really I didn't want her back. Not exactly. At least, I didn't want the familiar obligatory one-to-oneness with Lara, the getting up with Lara in the morning, the making the coffee for Lara, the sharing the toast with Lara, the following Lara to the bus twenty minutes after, the calling Lara at her office from my office, wondering who Lara was seeing for lunch, being home before Lara and waiting for Lara to come in, sharing

a strained dinner with Lara, watching TV with Lara, fighting with Lara, swallowing resentments against Lara; I didn't even want going to bed with Lara or those few moments, so brief and in recollection so illusory, when Lara and I were peacefully at one or pleasuring each other with some discovery or joy. Drowsily I began to feel that I wanted nothing from Lara except the privilege of letting go of her without anger or pain; letting go of all pain, maybe, so that I did not have to have it eating at me.

But how much of this I said, or heard, I do not know, I only remember bits and tableaux. I remember Willie the Weeper actually weeping, softly and easingly like Barbie. I remember that there was a point when there was no more of the cave drippings left except some little bit that had just begun to work. I remember kissing Dolly, who was crying in quite a different and more painful way, and then I only remember waking up.

At first I was not sure where I was. For a moment I thought we had all got ourselves dead drunk and wandering, and perhaps had gone out into the cave and got ourselves lost in some deadly, foolish way. It scared me. How could we ever get back?

But it wasn't that way, as I perceived as soon as I saw that we were huddled in a corner of one of the sleeping rooms. I was not alone in my sleeping bag; Barbie was there with me, her arms around me and her face beautiful and slack. There was a weight across our feet which I thought was Dolly.

But it wasn't. It was Willie Murtagh, wrapped in his own bag, stretched flat and snoring, and Dolly was not anywhere around.

Aspects of External Reality

Geology. About a hundred million years before the birth of Christ, during the period called the Upper Cretaceous when the Gulf of Mexico swelled to drown huge parts of the Southern United States, a series of volcanic eruptions racked the sea that would become the Caribbean. The chains of islands called the Greater and Lesser Antilles were born.

As the molten rock boiled forth and the pressure dropped, great bubbles of trapped gas evolved, some bursting free into the air, others remaining imprisoned as the cooling and hardening of the lava raced against the steady upward crawl of the gas. In time the rock cooled and became agelessly hard. The rains drenched it, the seas tore at it, the winds scoured it, and all of them brought donations: wave-borne insects, small animals floating on bits of vegetation or sturdily swimming, air-borne dust,

bird-borne seeds. After a time the islands became densely overgrown with reeds and grasses, orchids and morning-glories, bamboo, palm, cedar, ebony, calabash, whitewood; it was a place of karst topography, so wrinkled and seamed that it was like a continent's worth of landscaping crammed into a single island, and overgrown everywhere.

Under the rock the bubbles remained; and as the peaks weathered, some of the bubbles thinned and balded at the top, opened, and collapsed, leaving great round open valleys like craters. When astronomers wanted to build the biggest damned radio telescope the world had ever seen, they found one of these opened-out bubbles. They trimmed it and smoothed it and drained it and inlaid it with wire mesh to become the thousand-foot dish of the Arecibo Observatory. Countless other bubbles remained. Those that had been farther under the surface remained under the surface and were hidden until animals found them, then natives, then pirates, then geologists and spelunkers, who explored them and declared them to be perhaps the biggest chain of connected caverns ever found in the earth. Tourists gaped. Geologists plumbed. Astronomers peered, in their leisure hours. And then, when all radio telescopy was driven to the far side of the Moon by a thousand too many radio-dispatched taxicabs and a million too many radar ovens, the observatory no longer served a function and was abandoned.

But the caves remained.

Physical Description. After examining nearly all of the Puerto Rican cave system, a group of four linked caverns was selected and suitably modified. By blasting and hammering they were shaped and squared. Concrete flowed into the lower parts of the flooring to make them level. Wiring reached out to the generators of the old observatory, and then there were lighting, power and communications facilities. In a separate cavern near the surface, almost burst through to the air, rack upon rack of salt crystals was stored; in the endless Puerto Rican sun the salt accepted heat, and when warmth was needed below, air was pumped through the salt. Decorators furnished and painted the chambers. Plumbers and masons installed fixtures and the pool. Water? There was endless water from the inexhaustible natural springs in the mountains. Drainage? The underground rivers that flowed off to the sea carried everything away. (When the astronomers came to build their telescope, they found that the valley had become a stagnant lake; its natural drain, through underground channels to the sea, had become blocked. Divers opened it, and the water swept sweetly away.) Two short elevator shafts, one for use and one for backup, completed the construction program. The result was an isolation pit exempt from the diurnal swing and the seasonal shift, without time or external stimuli, without distraction.

Support facilities. Maintenance, care and supervision of the problem pits is provided by a detachment of 50 VISTA volunteers, working out their substitute for military service. They tended the pumps, kept the machinery in repair and did the housekeeping for the inmates. Their duties were quite light. The climate was humid but pleasant, especially in the northern hemisphere's winter months. Except for the long jackknifing drive to the city of Arecibo on the coast, for beer and company, the VISTA detachment was well pleased to be where they were. The principal everyday task was cooking, and that was no problem; it was all TV dinners, basically, prefabricated and prefrozen. All the duty chefs had to do was take the the orders, pull them out of the freezers, pop them in the microwave ovens and put them on the dumbwaiter. Plus, of course, something like scrambling eggs and buttering toast from time to time. There were seldom problems of any importance. The attempt of the United Brotherhood of Government Employees, in 1993, to organize the paramilitary services was the most traumatic event in the detachment's history. There had been a strike. Twenty-two persons, comprising the ongoing group of problem personnel, were temporarily marooned in the caves. For 18 days they were without food, light or communications, except for a few dumbwaiter loads of field rations smuggled down by one of the strikers. The inconvenience was considerable, but there were no deaths.

Monitoring and evaluation. Technical supervision is carried on by administratively separate personnel. There are two main areas of technical project control.

The first, employing sophisticated equipment originally designed for observatory use but substantially modified, is based near the old thousand-foot dish in the former administration and technical headquarters. Full information retrieval and communications capabilities exist, with on-line microwave links to the Heptagon, in Terre Haute, Indiana, via synchronous satellite. This is the top headquarters and decision-making station, and the work there is carried on by an autonomous division of SAD with full independent departmental status. The

personnel of both technical supervision installations are interchangeable, and generally rotate duty from Indiana to Puerto Rico, six months or a year at a time.

The personnel of the technical project control centers are primarily professionals, including graduate students in social sciences and a large number of career civil service scientists in many disciplines. While stationed in Puerto Rico, most of these live along the coast with their families and commute to the observatory center by car or short-line STOL flight. They do not ordinarily associate with the VISTA crews, and only exceptionally have any first-hand contact with the members of the problem-solving groups, even the professional resource people included. This was not the original policy. At first the professionals actually participating in the groups were drawn by rota from the administrative personnel. It was found that the group identity was weakened by identification with the outside world, and so after the third year of operation the group-active personnel were kept separate, both administratively and physically. When off duty the group-active professionals are encouraged to return to their own homes and engage in activities unrelated to the work of the problem pits.

The problem pits were originally sponsored by a consortium consisting of the RAND Corporation, the Hudson Institute, Cornell University, the New York Academy of Sciences and the Puerto Rican Chamber of Commerce, under a matched-funds grant shared by SAD and the Rockefeller Foundation. In 1994 it was decided that they could and should be self-financing, and so a semi-public stock corporation similar to COMSAT and the fusion-power corporations was set up. All royalties and licensing fees are paid to the corporation, which by law distributes 35 per cent of income as dividends to its stockholders, 11 per cent to the State of Puerto Rico and 4 percent to the federal government, reinvesting the balance in research-and-development exploitation.

Results to date. The present practice of consensual labor arbitration, the so-called "Nine Per Cent" income tax act, eight commercially developed board games, some 125 therapeutic personality measures, 51 distinct educational programs (including the technique of teaching elementary-school children foreign languages through folksinging) and more than 1800 other useful discoveries or systems have come directly from the problem-solving sessions in the Arecibo caves and elsewhere and from research along

lines suggested by these sessions.

Here are two examples:

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The Nine Per Cent Law. After the California riots, priority was assigned to social studies concerning "involvement," as the phrase of the day put it. Students, hereditarily unemployed aerospace workers, old people and other disadvantaged groups who had united and overthrown civil government along most of the Pacific Coast for more than 18 months were found to be suffering from the condition called *anomie*, characterized by a feeling that they were not related to the persons or institutions in their environment and had no means of control or participation in the events of the day. In a series of problem-pit sessions the plan was proposed which ultimately was adopted as the Kennedy-Moody Act of 1993, sometimes called "The Nine Per Cent Law." Under this act taxpayers are permitted to direct a proportion of their income tax to a specific function of government, e.g., national defense, subsidization of scientific research, education, highways, etc. A premium of 1 per cent of the total tax payable is charged for each 10 per cent which is allocated in this way, up to a limit of 9 percent of the base tax (which means allocating 90 per cent of the tax payable.) The consequences of this law are well known, particularly as to the essential disbanding of the DoD.

The Militia Draft. After the 1991 suspension of Selective Service had caused severe economic dislocation because of the lack of employment for youths not serving under the draft, a problem-pit session proposed resuming the draft and using up to 60 per cent of draftees, on a volunteer basis, as adjuncts to local police forces all over the nation. It had been observed that law enforcement typically attracted rigid and often punitive psychological types, with consequent damage to police-civilian relations, particularly with minority groups. The original proposal was that all police forces cease recruiting and that all vacancies be filled with national militia draftees. However, the increasing professionalization of police work made that impractical, and the present system of assigning militia in equal numbers to every police force was adopted. The success of the program may be judged from the number of other nations which have since come to imitate it.

In recent years some procedural changes have been made, notably in giving preference to nongoal-oriented problem-solving sessions, in which all participants are urged to generate problems as well as

solutions. A complex scoring system, conducted in Terre Haute, gives credits for elapsed time, for definition of problems, for intensity of application and for (estimated) value of proposals made. As the group activity inevitably impinges on personality problems, a separate score is given to useful or beneficial personality changes which occur among the participants. When the score reaches a given numerical value (the exact value of which has never been made public), the group is discharged and a new one convened.

The procedures used in the problem pits are formative, eclectic and heuristic. Among the standard procedures are sensitivity training, encounter, brainstorming and head-cloning. More elaborate forms of problem-solving and decision-making, such as Delphi, relevance-tree construction and the calculus of statement, have been used experimentally from time to time. At present they are not considered to be of great value in the basic pit sessions, although each of them retains a place in the later R&D work carried on by professional teams, either in Terre Haute or, through subcontracting, in many research institutions around the country.

Selection procedures. Any citizen is eligible to volunteer and, upon passing a simple series of physical and psychological tests designed to determine fitness for the isolation experience, may be called as openings occur. Nearly all volunteers are accepted and actually participate in a pit session within 10 months to one year after application, although in periods when the number of volunteers is high, some proportion are used in sessions in other places than Arecibo, under slightly different ground rules.

In order to maintain a suitable ethnic, professional, religious, sexual and personality mix, and as part of a randomizing procedure, about one half of all participants are selectees. These are chosen through Selective Service channels in the first instance, comprising all citizens who have not otherwise discharged their military obligation. Of course, the number thus provided is far in excess of need, and so a secondary lottery is then held. Those persons thus chosen are given the battery of tests required of volunteers, and those who pass remain subject to call for the remainder of their lives. As a matter of policy, many of the youngest age groups are given automatic deferments for a period of years, to provide a proper age mix for each working group.

Summary and future plans. The problem-pit sessions have proven so productive that there have been many attempts to expand them to larger formats, e.g., the so-called "Universal Town Meeting." These have achieved considerable success in special areas, but at the cost of limiting spontaneity and interpersonal interaction. Some studies have criticized the therapeutic aspects of pit sessions as distractive and irrelevant to their central purpose. Yet experimental sessions conducted on a purely problem-solving basis have been uniformly less productive, perhaps due to the emergence of a professionalist elite group who dominate such sessions; as their expertise is acquired through professional exposure over a period of time, their contributions are often too conventional and thus limited. The fresh, if uninformed, thoughts of nonexperts give the pit sessions their special qualities of innovation and daring. Most observers feel that the interpersonal quality of the sessions cannot be achieved on a mass scale except with the comcomitant danger of violence, personal danger and property destruction, as in the California Cultural Revolution. However, studies are still being pursued with the end in view of enlarging the scope and effectiveness of the sessions.

In conclusion, we can only agree with the oft-quoted extemporaneous rhyme offered by Sen. Moody at the ceremonies attendant on the tenth anniversary of the establishment of the problem pits:

The pits are quirky,
Perfection they're not.
The best you can say's
They're the best we've got.

The Statement of Tina's Problem

In Tina Wattridge's head lived a dozen people, all of whom were her and all of whom fought like tigers for sole ownership. Pit Leader Tina moved among the group, offering encouragement here, advice there, bringing one person to interact with another. Mother Tina remembered, after a third of a century, the costive agony of childbirth and the inexpressible love that drowned her when they first laid her daughter in her arms. Tina the Spy eavesdropped and snooped, and furtively slipped into the communications room to type out her reports on group progress. Homemaker Tina loathed the cockroach yellow paint on the walls of the main social room and composed unsent demands to the control authorities for new mats for the pool chamber, where the dank and the hard use had eaten them into disgraceful tatters. And all the Tinas were Tina Wattridge, and when they battled among themselves for her, she felt fragmented and paralyzed. When she felt worst was when one of the long-silent Tina's came arrogantly to the fore

and drove her in a direction she had long forgotten. It was happening now. She knew what a spectacle she must seem to everyone present, most of all to the other parts of herself, but she could not help herself; she was in love; could not possibly be in love; was.

And while she was numb to everything but the external love and the interior pain of reproach, her group was exploding in a dozen directions. She couldn't cope; somehow she did cope, moment by moment, but always at the cost of feeling that there she had spent the last erg of energy, the last moiety of will and had nothing left — until another demand came. And they came every minute, it seemed. Bob Sanger shouting and trembling, demanding that the group be terminated and he be let to get back to his collapsing business. David Jaretski and Barbara Devereux screaming that their friend Dolores had blundered off into the caves to die. Marge Klapper (who should have known better!) whispering that she wanted to get out now, right now, to have the other man's baby pumped out of her so she could go back to the man she was married to. And back and forth to the teletypes, sneaking in reports; and worrying about every person there; and most of the time, all of the time, with her mind full of Dev Stanwyck and their utterly preposterous, utterly overpowering love.

She could not sleep. She would lie down exhausted, more often than not with Dev beside her, and sometimes there would be sex, fast and total, and sometimes there would be his passionate attempt to explain and justify all of his life. Sometimes nothing but exhaustion alone; she would feel herself falling away into sleep and hear Dev's breathing deepen beside her. And then some voice from the other room, or some memory, or some discomfort from the fold of the sleeping bag would come. Not much. Enough. Enough to pull her back from sleep, fighting angrily against it, and in a minute she would be wide awake with her mind furiously circling into a kind of panic.

Then she would get up, trying not to disturb Dev, trying to avoid the rest of the group and head for the only place in the caves where she could have privacy, the toilets. And with the door locked, in the end stall, she would reach behind the flush tank and slide one piece of molding over another and take out the rough copies of her reports, trying to force her mind back onto her job.

Day 1, hour 2300. WATTRIDGE reporting. FEIN introduced VD epidemiology problem; no group uptake. SANGER states problem of approaching bankruptcy in dental findings industry; n.g.u. JEFFERSON made no overt statement but indicates sexual inadequacy problem. JARETSKI marital situation; wife has left him. ITTRI despondent career status; attributes lack of education. MURTAGH states criticism of Congressional election procedure; n.g.u. GROUP interaction in weak normal range.

They had all been strangers then. Dev Stanwyck's name did not even appear in that first report!

Day 4, hour 2220. WATTRIDGE reporting. KLAPPER and BELLI hostility; fought with bats without resolution. GROUP effective in bioenergetics and immersion therapy. Some preliminary diagnoses: DEVEREUX passive-aggressive, deep frustration feelings. BELLI compulsive and anal-retentive. STANWYCK latent homosexual father-dominated. (Note: I have personal feelings toward STANWYCK. I think of him as a son.)

She flipped hastily through the pages of the notebook, trying to ignore the fact that somebody was silently moving around outside the toilet door, apparently listening. Then she found the page she was looking for:

Day 13, hour 2330. WATTRIDGE reporting. Clique formation: BELLI-DEVEREUX-JARETSKI: semisexual triad, some boding to rest of group. STANWYCK-ITTRI, bivalent pairing, sociopersonal conflict vs. joint hostility to rest of group, little interaction. FEIN-KLAPPER-SANGER, weak professional communality of interest in medical areas; unstable bond, with individual links to other group members. No overt sexual interaction observed. Problem-solving: SANGER received full group brainstorm but did not consider any proposal satisfactory; forwarded for analysis. FEIN received approximately 30 minutes intensive discussion, no formal proposals but interaction taking place. ITTRI: Has become able to perceive own failure to make use of adult-education and other resources, accepts suggestions for courses and new career orientation. (Note: BELLI noticed in the pool that I was wearing my watch. I tried to persuade her that it was only an ornament and did not keep time. However, she told some of the others. STANWYCK in particular has been observing me closely, making these transmissions difficult even with blind-typing.)

And there it was, an absolute fraud! It hadn't happened that way

at all. It had been Dev Stanwyck who had noticed it first, Dolly Belli only a day later; and Tina remembered cringingly with what anger and passion she had blown up at Dolly's half-joking question. It had stopped the questioning, all right; Dolly climbed out of the pool without another word, and her friends followed her. What else had it stopped: How close had Dolly been to opening up to the group at large?

And where had the anger come from? It was only when Tina had realized that the anger was all out of proportion to the stimulus that she had plumbed in her mind for another source and found it transferred from her own feelings about Dev Stanwyck.

Slowly she turned to a blank page and began her latest report:

Day 17, hour 2300. WATTRIDGE reporting. BELLI still missing. Tensions peaking. Group interaction maintaining plateau in high normal range. Sexual pairing marked: JARETSKI-DEVEREUX, KLAPPER-FEIN (temporary and apparently discontinued), ITTRI-TEITLEBAUM, Also WATTRIDGE-STANWYCK. (Note: I find this professionally disconcerting and am attempting to disengage. I am too old for him!)

She put down the pencil and wrinkled her eyes; repentance oft I swore, yes, but was I sober when I swore? How could she disengage herself from someone a third her age who found that she turned him on? And how could she not?

The breathing outside stopped for a moment, and then Dev's voice said, "Tina, is that you in there?"

She could not answer; some maiden shyness kept her from speaking while sitting on a toilet, or else she simply did not know what to say to Dev.

"I think you better come out," he went on. "Something's happening."

Hassling Willie

In the main social room Marge Klapper was facing Willie Murtagh across a mat. Both were tense and angry, which troubled Marge more than Willie because she did not like to be professionally inept. The one-night stand with Jerry Fein had left her upset, especially as Jerry didn't want to let it stay a one-night stand; she was angry; she wanted to get out to get rid of her souvenir of one other one-night stand; she wanted to go back to her husband and find out if the marriage could be made to work; and, most difficult of all, she wanted to do all those things while retaining her self-image as a competent professional intact. So she reached out for Willie:

"Do you want to fight?"

He stood angrily mute and shook his head.

She dropped the soft inflated plastic bats and put a professional smile on her face. "Shall we push? Would you like to go in the pool?"

"No." He wasn't helping at all. He was uptight and souring the whole group with his tensions and giving her nothing to work on — nothing, she realized, except that intensity with which he was looking at her, as though hoping the next word out of her mouth would be what he wanted. So she tried again. She stepped up on the edge of the mat and said sweetly to Willie, "Would you like to try something with me? Let's jump."

Willie said, "Oh, Christ."

"Go on," Jerry Fein put in helpfully. "Shake the tensions out."

"Stay out of this, Jerry!" Marge snapped. And then forced herself to relax. "Like this, Willie," she said, jumping, coming down, jumping again. "Try it."

He glowered, looked around the room and gave a half-hearted hop.

"Great!" cried Marge. "Higher!"

He shrugged and jumped a mighty leap, twice as high as hers. Then another. "Beautiful, Willie," said Marge breathlessly. "Keep it up!" It was like an invisible seesaw, first Marge in the air, then Willie, Marge again; he began to move his feet like a Russian dancer, coming down with one knee half bent, then the other, turning his body from side to side. "Make a noise, Willie!" Marge yelled triumphantly, and demonstrated: "Yow! Whee! Hoooo!"

The whole group was joining in — anyway, that part of it that was in the room, all yelling with Willie. Marge felt triumphant and fulfilled; and then Tina had to come in and spoil it all.

"Sorry, Marge," she called from the doorway. "Listen, everybody. Does anybody know where Barbie and David are?"

"In the pool?" somebody guessed helpfully.

"No. I looked everywhere."

Marge panted angrily, "Tina, do you have to take attendance right now?"

"I'm sorry, Marge. But I'm afraid they've gone into the caves after Dolly. Is anyone else missing?"

The group looked around at itself. "Rufous!" cried Jerry Fein. "Where's he?"

Dev Stanwyck, as always tagging along after Tina, said in his superior way, "We've already checked the sleeping rooms. Rufous is there. Anybody else?"

No answer for a moment, and then three or four people at once: "Bob Sanger!"

Tina looked around, then

nodded grimly. "Thanks." And she disappeared, Stanwyck hurrying after.

Nevertheless the interruption had wrecked Marge's mood. And hadn't done any good for Willie, either; he was collapsed on the floor, staring into space.

"Well," said Marge heartily, "want to get back to it, Willie?"

He looked up and said, "I know where they are. It's kind of my fault." He straightened up and said, "Hell, it's *exactly* my fault. I was trying to get with that colored girl, and I said something I shouldn't have. Dolly took it the wrong way and split for the caves, and I — Well, I told David it was his fault, so he went after her. I didn't actually think he'd take Barbie with him."

"Or Sanger," said someone.

"I don't know anything about Sanger. But I know where they are. They're wandering."

Tina said from the entrance, "No, not in the caves, they aren't." All at once she looked every year of her age. "They're outside," she said. "I just heard from the VISTA crew; they identified four persons leaving the caves about a quarter of a mile from here, one alone, then three more about an hour ago."

"At least they're outside," said Willie thankfully.

"Oh, yes," said Tina, "they're outside. In the dark. Wandering around. Did you look at the terrain when you came in, Willie?" She absent-mindedly pressed her hands against her face. It smeared her make-up, but she was no longer aware she had it on. "One other thing," she said. "You can all go home now. The word just came down over the teletype; our group is discharged with thanks and, how did they say it? — oh, yes. 'Tell them it was a good job well done,'" she said.

Running Home

I didn't really believe Willie even when it was clearly to his advantage to tell the truth, but it was the way he said: follow the piece of string he had laid out, exploring the caves to keep from exploring his own head, and you came to a rock slope, very steep but with places where somebody had once cut handholds into it, and at the end of the hand-holds you found yourself out in the fresh air. When we got out we were all beat. Bob Sanger was the worst off of us, which was easy to figure when you considered he was a pretty old guy who hadn't done anything athletic for about as long as Barbie and I had been alive. But he was right with us. "I'll leave you now," he said. "I do appreciate your help."

"Cut it out, Bob," wheezed Barbie. "Where do you think you're going?"

It had turned out to be night, and a very dark night with a feeble tepid rain coming down, too — perhaps they had no other kinds around there. I couldn't see his face, but I could imagine his expression, very remote and contented with whatever interior decisions he had reached. "I'll make my own way, thank you," he said politely. "It is only a matter of finding a road, and then following it downhill, I imagine."

"Then what?" I demanded. "We're AWOL, you know."

"That's why I have attorneys, Mr. Jaretski," he said cheerfully.

"Sitting on the bottom of the hill waiting for you?"

"Of course not. Really, you should not worry about me. I took the precaution of retaining my money belt when we checked our valuables. U.S. currency will get me to Ponce, and from there there are plenty of flights to the mainland. I'll be in California in no more than eight or nine hours, I should think."

"Listen, Bob!" I exploded — but stopped; Barbie squeezed my shoulder.

"Bob," she said, in a tone quite different from mine, "it isn't just that we're worried about you. We're worried about Dolly. Please help us find her."

Silence. I wished I could have seen his face. Then he said, "Please believe me, I am not ungrateful. But consider these facts. First, as I explained to all of you when we started this affair, it is of considerable importance to me to keep my company solvent. I believe that I have reasoned out a way to do so, and *I have no spare time.* I have no idea how much time we've wasted, and it may already be too late. Second, this is a big island. It is quite hopeless to search it for one girl with a long start, with no lights and no idea of where she has gone. I would help you if I could. I can't."

I said, trying to crawl down from my anger, "We don't have any other way to do it, Bob. I think I know where she is; anyway, that's where I want to look. But three of us can look fifty per cent better than two."

"Call the VISTA crew," he said.

"I don't know where they are."

"Anyway, you're assuming she may be in some kind of danger. She is quite capable of taking care of herself."

"Capable, yes. Motivated, no. She's jealous and angry, Bob. Barbie and I were shacked up and it —" I hesitated; I didn't know exactly how to say it. "It spoiled things for her," I said. "I think she might do something crazy."

Sanger spluttered, "Your f-for-nications are your own business, Mr. Jaretski! I must go. I —"

He hesitated and became, for him, confidential. "I believe that the discussion of my problem has in fact borne fruit. The, ah, gynecological instruments are an area in which I had little knowledge."

"You've invented a warmer for the thingy?" Barbie asked, interestedly.

"For the speculum, yes. A warmer, no. It isn't necessary. Metal conducts heat so rapidly that if it isn't warm it feels cold. Plastic such as our K-14A is as strong as metal, as poreless and thus readily sterilized as metal and has a very low thermal conductivity. I think — well. The remainder of what I think is properly my own business, Miss Devereux, and I want to get back to my own business to implement it before it is too late."

"Jesus, Bob," I said, really angry, "don't you feel anything at all? You got something good out of the group. Don't you want to help?"

I could hear him walking away. "Not in the least," he said.

"Won't you at least come over to the radio mirror with us to look? There's a road there...."

But he didn't even answer.

And we had wasted enough time, more than enough time. I took Barbie's hand, and we started off to where the faint sky glow suggested there were buildings. There was nothing much else in these hills; it had to be either the administration buildings around the radio dish or the cave entrance, and either way I could find my way from there. Of course, Dolly might not have gone to the dish. But where else would she go? Down the hill to civilization, maybe, but in that case she would be all right. But if she had gone to the dish, if she had been listening when I told her about the slippery catwalk and the five-hundred-foot drop — no, there was not much more time to waste.

There was no road near the outcropping with the crevice through which we had come. People had been there before. There was a sort of bruised part of the undergrowth that might have been a kind of path. It didn't help much. We bulldozed our way through the brush, with wet branches slapping at us and wet vines and bushes wrapping themselves around our legs; a little of that was plenty, on the up-and-down hillsides, but after half an hour or so we did hit a road. Something like a road, anyway; two parallel ruts that presumably were used from time to time, because the vegetation had not quite obliterated it. It circled a hill, and from the far side of it I could see not one but two glowing spots in the cloud. The nearer and brighter one looked like the entrance to the pit. Ergo, the other was where we wanted to go.

I think it took us a couple of hours to get there, and we didn't have the breath for much talking. We were lower down than I had been before. The suspended thing that looked like an old trolley car slung from wires was now higher up than we were; the rain had stopped, and the clouds were beginning to lighten with dawn coming. I stopped, gasping, and Barbie leaned against me, and the two of us stared around the great round bowl.

"I don't see her," Barbie said.

I didn't see her either. That was not all bad. The good part was that I didn't see her body spread out over the rusting wire mesh at the bottom of the bowl. "Maybe she didn't come here after all," I said.

"Where else would she go?"

"She could have got lost." Or she could have blundered down the mountains looking for a road. Or she could have found another cliff to jump off.

But I didn't think so, and then Barbie said, very softly, "Oh, look up there, my David. What's that that's moving?"

I looked. It was still gray and I could not be sure; but, yes, there was something moving.

It was actually in the big metal instrument cage, whatever it was.

I said, "I don't know, Barb. Let's go find out."

It was easy to say that, hard to do; the catwalk started out from the side of a hill but unfortunately not the hill we were on; we had to skirt one and circle around another before we reached the end of the catwalk. That was twenty minutes or so, I guess; and by then the day was brighter. And that was not all good. The bad part was that I could see the catwalk very clearly. It had not been used much for, I would guess, ten or fifteen years. Maybe more. It had a plank floor with spaces between the planks and spaces where planks seemed to have rotted out and fallen off. It had a wire net side-barrier: rusty. The cables themselves, the overhead ones from which it was slung and the smaller ones that bound it to them, looked sturdy enough, but what good would that do us if the boards split under us and we fell through?

There were, however, only two alternatives, and neither of them was any good. The tangible alternative was a sort of bucket car that rose from the administration buildings to the machine cage, but to get to that meant going halfway around the bowl, and who could know if it would be working? The intangible alternative was to turn away. So in effect we had no alternatives, and I took Barbie's hand and led her out onto the catwalk. By the time we were ten yards along it, we became aware of

wind (we had not felt it before) and the rain (which slammed into us from the side). And we became aware that the whole suspended walk was swaying, and making creaking, testy, failing sounds as it swayed. We walked as lightly as we could....

I was almost surprised when we discovered that we were at the machine cage. Down between our feet was a whole lot of emptiness, with the wire mesh and the greenery poking through at the end. Over us was the machinery. And I didn't know what to do next.

Barbie did; she called, "Dolly dear, are you up there?"

There was no answer.

I tried: "Dolly, please come down! We want you."

No answer, except what might have been the wind blowing, and might have been a sob.

Barbie looked at me. "Do you want to go up and look around?"

I shook my head. There was a metal ladder, but it went into a hatch and the hatch was shut. I really didn't like the idea of climbing those few extra feet, but most of all I didn't like the idea of driving Dolly farther and farther away, until I drove her maybe out of some window. I yelled, "Dolly, we didn't come all this way just to say good-by. We want you with us, Dolly!" I hadn't asked Barbie if that was true; it didn't matter.

Silence that prolonged itself, and then there was a grating sound and the hatch opened. Dolly peered down at us, looking cross but otherwise not unusual. "Crap," she said. "Okay, you've soothed your consciences. Now go back to bed."

Barbie, holding on to the ladder — the whole structure was vibrating now — looked up at her and said, "Dolly, are you mad because David and I went to bed?"

With dignity Dolly said, "I have nothing to be angry about. Not to mention I'm used to it."

"Because it wasn't that big a deal, Dolly," Barbie went on. "It just happened that way. It could have been you and David, and I wouldn't have been mad."

"You're not me," said Dolly, and added, very carefully and precisely, "you're not a girl that's always been fifty pounds too fat, that everybody laughs at, that buys the kind of clothes you wear all the time and tries them on in front of a mirror, and then throws them out and cries herself to sleep."

She stopped there. Neitber Barbie nor I said anything for a moment. Then I started, "Dolly dear —" But Barbie put her hand on my shoulder and stopped me.

She gathered her thoughts and then said, "Dolly, that's right, I'm not you. I'm me, but maybe you don't know what it's like to be me, either. Would you like me to tell

you who I am? I'm a girl who really looked forward to this group, which took all the guts I had, because it meant letting myself hope for something, and then ran out of courage and never asked anybody for the help I wanted. I'm a black girl, Dolly, and that may not seem like much of a bad thing to you, but I happen to be a black girl who's going to die of it. Or to put it another way, Dolly dear, you're a girl who can make plans for Christmas, and I'm a girl who won't be here then."

You hear words like that, and for a minute you don't know what it is you've heard. I stood there, one hand holding on to the ladder, looking at Barbie with the expression of polite interest you give someone who is telling you a complicated story of which you have not yet seen the point. I couldn't make that expression go off my face. I couldn't find the right expression to replace it with.

Dolly said, "What the hell are you talking about?" And her voice was suddenly shrill.

"What I say," said Barbie. "It's what they call sickle cell anemia. You white folks don't get it much, but us black folks, we get it. You know. All God's chillun got hemoglobin, but where your hemoglobin has something they call glutamic acid, my hemoglobin has something they call valine. Sounds like nothing much? Yeah, Dolly, but we die of it. Used to be we died before we grew up, most of the time, but they do things better now. I'm thirty-one, and they say I've got, oh, easily another five or six months."

Dolly's face pulled back out of the hatch, and her voice, muffled, yelled, "Wait a minute," and Dolly's legs and bottom appeared as she lowered herself down the ladder. When she got there, all she said was Barbie's name, and put her arms around both of us.

I don't know how long we stayed like that, but it was a long time. And might have been longer if we hadn't heard voices and looked up and saw people coming toward us along the catwalk. A hell of a lot of people, a dozen or so, and we looked again, and it was Bob Sanger leading all the rest.

"Why, son of a bitch," said Barbie in deep surprise. "You know what he did? He went and got the group to see if we needed help."

And Dolly said, "And you know what? We do. We all do." And then she said, "Dear Barbie. We could all be dead before Christmas. If David will have us, let's stick together a while. I mean — a while. As long as we want to." And before Barbie could say anything, she went on? "You know, I volunteered for this group. I didn't exactly ever say what I wanted, but I can tell you

two. I guess I could tell all of them, and maybe I will." She took a deep breath. "What I wanted," she said, "was to find out how to be loved."

And I said, "You are."

The Wrap-Up

Tina Wattridge Final Report. Attached are the analysis sheets, work-ups, recommendations and SR-4 situation cards.

There is one omission. I left out Jerry Fein's solution to his own problem. If you refer to D6H2140, you will find the problem stated (epidemiological control measures for VD). He ultimately provided his own solution, quote his words from my notes: "Suppose we make a monthly check for VD for the whole population. Everybody who shows up and is clear on the tests gets a little button to wear, like in the shape of a heart, with a date. You know, like the inspection sticker in a car. It could be like a charm bracelet for girls, maybe love beads for men. And if you don't pass the test that month, or start treatment if you fail, you don't get to wear the emblem." The reason I did not forward it was not that I thought it a bad idea; actually, I thought it kind of cute, and with the proper promotion it might work. What I did think, in fact what I was sure of, was that it was a setup. Jerry planted the problem and had the solution in his head when he came in, I guess to get brownie points. Maybe he wants my job. Maybe he just wanted to end the session sooner. Anyway he was playing games, and the reason I'm passing it on now is that I've come to the conclusion that I don't really care if he was playing games. It's still not a bad idea and is forwarded for R&D consideration.

One final personal note: Dev Stanwyck kissed me sweetly and weepily good-by and took off for Louisiana with the Teitlebaum girl. I hated it, but there it is, and anyway — Well, I don't mind his being young enough to be my youngest son, but I was beginning to kind of mind being his mother. When I was a little girl, I saw an old George Arliss movie on TV; he played an Indian rajah who had tried to abduct an English girl for his harem, and after his plot was foiled, at the end of the picture, he said something that I identify with right now. He looked into the camera and lit a cigarette and said, "Ah, well. She would have been a damn nuisance anyhow."

All in all, it was a good group. I'm taking two weeks accumulated leave effective tomorrow. Then I'll be ready for the next one.

Again we turn to one of sf's most able and intelligent writers, Lester del Rey, for this profile and critical appraisal. Most of Mr. del Rey's recent work has been criticism (regular book reviews in IF), and critical work has a way of turning off the fiction tap. However, we can happily report that we have a new del Rey story on hand that will be along later this year.

Frederik Pohl: Frontiersman

by LESTER del REY

For the past month, I've been wearing out my fingers and numbing my brain in trying to write a profile on Frederik Pohl and a critical appraisal of his work. The result is that I now know I cannot possibly do so.

It should be easy enough. I've known Fred since 1939, and for the past twenty years I've considered him the best friend I have in the world. I've worked under him, collaborated with him, fought bitterly over ideas with him, and shared more of his and my triumphs and tragedies than seems possible. Yet I cannot write about him critically. Only he could do that — and I suspect he never would.

More than any other man I know, he's an interior person. Oh, there's an exterior that seems quite human and can be engagingly helpful or distressingly cutting. But somehow, the real interior never lets the outer persona do more than show edited selections of the surface of itself.

My father once tried — rather unsuccessfully — to describe such a man whom he'd known back around 1880. He was the last of the real frontiersmen, my father claimed, as if that should explain things. Maybe it should — and maybe it does. Because that would make Fred a frontiersman of the ultimate frontier — the future — and his record indicates that is precisely what he has always been.

I heard of him long before I met him. Born in Brooklyn, a little more than fifty years ago, he came from a good background, and his mother encouraged him to appreciate good literature. Then he discovered science fiction. Back in those days,

there weren't more than fifty major fans in the country, but he quickly became one of them. When a group of New York fans went all the way to Philadelphia to meet other fans, in the proto-worldcon, he was one of the group. Then he came back to help develop the idea into Nycon, the first World Science Fiction Convention held in 1939, which really started organized fan activities.

He didn't attend, however. In the great "Exclusion Act," he was turned away by those who'd taken over the con, on the grounds that he was too radical. (That meant he was part of a group advocating ideas that had been in a hundred science fiction stories and have since been adopted by even the conservatives.) There's always some excuse used to exclude the frontiersmen from the town they have made possible.

I met him first in 1939, when he was about 20. He sat behind a desk from which he had begun editing *Astonishing Stories* and *Super Science*, looking thinner than now, but otherwise the same; even the hairline was receding then. On the desk were two large feet, and he pointed across them to a chair for me, then began discussing science fiction as if we'd met a hundred times before. There was no post-"exclusion" bitterness I could detect, nothing personal. In fact, I came away with no real picture of the man. At the time, I thought the business of the feet on the desk was an effort to seem casual about his new position. Now I suspect he merely found it comfortable. He'd also sounded too positive about what kind of a magazine he meant to develop, and I knew that his budget was minuscule. (His salary was worse — about half enough to keep him in abject poverty in those Depression days.)

He proved himself as an editor, however. He managed to scrounge, collaborate and rewrite enough good stories to make his magazines consistently readable, and he even managed to get some unusual Heinlein stories. He supplemented his income in about every science fiction way.

You won't find his name on any story printed before 1950. Mostly, his work was together with Kornbluth, Wollheim and a dozen other young writers associated in a sort of loose living-and-writing association, and I never could keep track of all the pennames used. But a lot of the stories published in his and other magaz'nes were partly his. He also did a dozen stories of fair-to-very-good quality on his own, under the name of James MacCreigh.

Then I lost track of him during World War II. I was helping build planes and he was riding in them somewhere in Europe. Fred never

talked much about his experiences in the war. Some of it must have been ugly, though. Fred wouldn't fly afterwards for years. Once when he and I, with our wives, were heading for Chicon II, the car threw a piston and we had to force our way onto an interstate bus to Pittsburgh. We spent four hours in the smog there trying to find a way to get to Chicago. Then Fred suggested we get a cab to the airport. He looked a little white and strained as we took off in the dense fog, but he was still good company on the flight. After that, he flew regularly.

By then, we were good friends. We'd developed the idea of a sort of professional fan club while at the Philcon in 1947, and we organized it as the Hydra Club in his apartment over long meetings with seven other members. Within a year, we had an active membership of about fifty, most of whom were among the top-name s-f writers of the day. There were monthly meetings and special New Years' parties. And together with the Eastern Science Fiction Association, we even ran what for the time was a huge regional convention, July 4th weekend in 1950. It is rumored that about half the marriages in science fiction were either made or broken during it; and it is a fact that it introduced Isaac Asimov as a Toastmaster to the world! Characteristically, Fred refused to be chairman, though he deserved the position. (Years later, he and I tried to kill the Club off, after too many squabbles within it; but it refused to die, and is still going, though in much different form.)

Fred hadn't wasted all his time in such fan activities, however. He'd opened a literary agency, to handle the work of other writers, and it had become one of the two largest in the s-f field. Its importance was greater than its size, however. Fred did such things as getting Isaac Asimov's first book published by Doubleday and developing Robert Sheckley into a major writer in a couple of years. He acted as an advisor to Ballantine Books, helping the Ballantines to develop and choose their whole science fiction program, and getting them the writers they needed.

It wasn't just a matter of pushing his own stable of writers, either. He wanted science fiction to succeed and he tried to get the best books possible onto the market that was just beginning to develop. I was never his client, but he worked for years to get me to turn my "Nerves" from novelette into novel. The dedication in that book is to him for insistence, persistence, assistance — and existence! I meant every word of it. He was working

just as hard to help Horace Gold make a success of the new *Galaxy Magazine*. Most of the serials and a lot of the stories in the early issues were ones Fred dug up to meet the needs of the new market. In my own case, I don't think that it would have been possible to edit the four magazines that I was handling without his help in getting stories. My schedules were erratic and there were times when I had to make up a magazine almost overnight; somehow, when the emergency arose, I could always get a story or a writer to do a story from Fred.

Fred wasn't wasting all his time as a fan with the Hydra Club or as a pro with his agencies. He'd managed to get Cyril Kornbluth to return successfully to writing. And in 1952, *Galaxy* began a serial that was a collaboration between Pohl and Kornbluth. This was called *Gravy Planet*, later retitled *The Space Merchants* when it appeared as a book. This was the first time Fred had used his own name on a story, and it was one of the most significant novels of the time. It drew reviews from arch-conservative magazines and from the publication of the IWW — the radical "wobblies" of an earlier day. It was bitter, satirical, and yet somehow filled with a real sense of science fiction aspiration.

At the time, a number of critics were quick to point out that the writing must be mostly by Kornbluth, because it was so good. Some of those critics still stick by that theory, though later works done by Fred alone should have proved the quality of his writing long since. I know that in many cases neither Cyril nor Fred could remember which of them wrote a scene; but in cases they could identify, the critics were more often wrong than right! The truth was that Fred and Cyril worked in similar ways (except that Cyril liked to kill off his characters more often than Fred), and they could mesh their ideas completely. Some of the critics might be surprised to know how often Cyril's own stories were influenced by Fred! Or so I was told by Cyril.

From then on, the pull of writing proved stronger than the attractions of the agency. Eventually, Fred gave up his agency and moved to his big old house in Red Bank, N.J., where he soon married Carol, to whom he is still married. There he established the entire top floor as his quarters — a jumble of magazines and books, desks and electric typewriters, and at least a couple of beds where Fred could drop off to sleep if he stayed up too long writing. From it, he'd come down (grumpily, if he'd been sleeping; cheerfully if working, usually) for periodic refills of a big thermos in which he kept his coffee.

I got invited out there soon after I'd quit as an editor of the magazines. Fred had an idea for a novelette, and why didn't I come out one weekend and we'd write it together? Well, I don't like collaborating, but it was a darned good idea about a world where the sky really and literally was falling. So I learned about collaborating with him. He likes to take an idea and start a story to see what happens; if not enough happens, he tries something to perk it up. I like to start with every detail worked out, knowing exactly how it will end. So he did a chapter, and I figured out exactly where it was going, then wrote another. He came up, and his chapter went somewhere else. Finally, I thought I had him trapped into an inevitable development. I came back to find he'd let the sun fall out of the sky! But we finished it and sold it to *Beyond*, where it appeared as "No More Stars" under the penname of Charles Satterfield — a combination of the names of two current heavyweights. (Fred later used the name for a few solo efforts.)

Years later, I put its original title back and rewrote it to twice its length and with a new ending, for Fred to use in Magabooks. Even though the original idea was his, he insisted I take full credit in the byline and take all the payment.

We decided to try again, this time with an idea in the Pohl/Kornbluth vein. I was doubtful — I don't write that type. But it was only a novelette, so I went out to Red Bank and we began. In the middle, Fred came back from New York with news for us. Gold had been running a contest, and there had been almost no submissions, despite the very high reward for the time. Now the deadline was past, and he had to have a novel. If we'd make a novel out of what we were doing, he'd take it.

That was the time of the Army-McCarthy hearings. Naturally, neither Fred nor I could miss that. So we worked on a pretty erratic schedule, with long pauses between chapters. My wife and I stayed with the Pohls for weeks after weeks, while it all dragged on. And it wasn't going well. Our methods and ideas of both plot and character development were too divergent; maybe, if we'd worked more consistently with more time to discuss things, this might have smoothed out — but we couldn't miss the hearings. Somewhere toward the end, there was one long night when Fred and I sat up all night telling each other what we thought of each other's ideas in chill, determined tones. But we finished *Preferred Risk*, and picked the pen-name of Edson McCann.

The use of that pen-name was a

mistake, though we were operating honestly on the idea that our identity must be concealed. So we created a non-existent McCann, the Washington scientist who had to remain under a pseudonym. Years later, we learned that Robert Guinn, the publisher, had made all kinds of arrangements for publicity which was impossible without producing the author. He couldn't have cared less about who wrote the story or why; in fact, he'd have been delighted to know that Fred and I had done it, since our names were more important for publicity than that of McCann. Oh, well.

There should have been a tremendous friction left over from our trouble in writing, however, and a risk to our friendship. But nothing like that came about. My wife and I decided we wanted to live in Red Bank, and Fred immediately began helping us find a house within half a mile of him. Fred has admitted very few people to intimate friendship; but once he does accept a friend, almost nothing can come between them. The only result of our difficulty was that we never tried collaborating again.

Then Horace Gold left as editor of *Galaxy* and *If*, and Fred was chosen to succeed him. He remained as editor until the magazines were sold to another company, when he decided not to go with them. During those years, an amazing number of stories he had published won Hugos. In the anthology *The Hugo Winners* (Volume Two), edited by Isaac Asimov and roughly covering the period of Fred's editorship, there are 11 stories that first appeared in sf magazines: the score is Fred 9, all other editors combined 2. *If* was chosen as the best magazine of the year for three successive times.

New writers were always welcome to him. He instituted a regular use of at least one story an issue in *IF* by a previously unsold writer. He also discovered and developed most of the writers who have come to be accepted among our top ones since that time. Larry Niven was his discovery, as were scores of others. When Robert Silverberg decided to switch from his older style to more experimental stories, it was Fred who encouraged him and published his work.

Seemingly overnight, Fred became a public speaker — and a very good one. He went before groups of all kinds that had only recently heard of science fiction, trying to develop respect and understanding for the things we found in science fiction. He found himself in demand at handsome fees across the country. But I've been with him at too many Planetology sessions, all night radio shows, and fan conventions where

there was no payment to think that money was his real object.

It was like his work in local politics. He believed — and rightly so — that politics is the key to making our dreams of a better future come true, and that it all begins locally. He worked like a dog to get better men in office. But he never sought office himself, except once when he ran, unsuccessfully, for a non-paying token office he expected to lose.

We spent nearly twenty years as neighbors — during part of which time I was working under him on the magazines. We spent a lot of that time at night talking until dawn broke, over coffee, over cards, or over lists of numerous things. We talked of many things, but few of them deeply personal, and very little dealing with the things writers usually discuss about themselves and their works. We seemed to take all such things for granted, not needing discussion — which is very like Fred and very much unlike me. They were very good nights, mostly, and I think I got to know him as closely as possible. But the things I learned somehow do not go well on paper. He doesn't categorize that easily.

I know that he is deeply distressed by all violence and ugliness in human behavior. He'll avoid confrontations with such displays, if possible. But he isn't afraid of them. I can remember a time when a fool with a loaded shotgun threatened to shoot if he came one step nearer; Fred was unarmed, but he didn't stop until the other man lost his nerve, unable to face a quiet man who couldn't be stopped. Fred tends to put off all unpleasant things, on the theory that most such things go away if let alone; but when they finally have to be handled, he calmly goes about handling them.

I suspect that the interior man is more sensitive to hurt and disappointment than most men — but it's hard to see. If he's ever given to self-pity, it must be only briefly. He's been working all his life for hopes for improving the future, but he doesn't necessarily expect anything to go right. Whatever happens is something he accepts, before continuing on his way in his endeavors — a virtue probably absolutely necessary to any good frontiersman.

If I make him sound like a defensive, unhappy man who has built a shell around himself, I've badly misrepresented him. His interior nature is no defense mechanism, but far deeper. I've never yet seen a man with a defensive shell who was a genuinely happy drunk. And while Fred doesn't get drunk except on rare occasions, those times have been marked by an increasing happy

glow of warm love for everyone in the room.

He's also the most reliable, consistent and loyal friend a man can have. When my wife was killed in an auto accident, they insisted on locking me into a hospital. (Like Fred, I detest laws and rules for a man's own good; his own good is his own damned business and nobody else's!) But they did let me make a telephone to Fred. Carol Pohl answered, to tell me that Fred was in New York on business. But his absence wasn't important. I knew she'd take care of necessary calls to the family and find some way of contacting Fred. (Carol's pretty special as a friend, too.) And I knew he'd be with me as soon as he could find transportation by plane and rented car, no matter how urgent his business. He lived up to all I expected, and a little more. That type of friendship is rare now; but according to my father, it was the unquestioned code of the frontiersmen.

As a writer, Frederik Pohl is harder for me to assess properly than as a man. Part of the trouble is that so much of his important work is in collaboration, which makes the individual contributions impossible to determine. But part of the trouble lies in the fact that he has often chosen to do a type of story which I can admire but not really like. I'm not fond of satire, I find it hard to accept extrapolation of current trends too far into the future, and I dislike the type of character that seems to grow thinner with each chapter. There is often a reason for that last tendency — artistically, a world running down demands a character doing the same to emphasize it properly. But I still don't like it.

I do know that Fred can write marvelously when he tries to. I discovered that in 1950 (before his first published work under his own name) when I received a mailing from a small amateur press group called the Spectators. In it was a short sketch by Fred about a destitute Italian man and wife after the war. It was a beautifully effective piece of pure writing — taut, clean and strong, compelling in its restrained emotion. I've remembered it for nearly a quarter of a century from that one reading.

Looking back on it, it strikes me that for that brief sketch, the interior persona of Fred was somehow communicating some of its richness of feeling and texture. For most of his other work, it strikes me that it is the skilled, adept persona at work. But this is only a hunch, not a judgment.

The Space Merchants was an entirely different type of writing, but I had to respect it when it appeared and I've grown to value it more highly with time. It was a rich

blockbuster of a satirical novel, holding up a distorting — and hence more forceful — warning of trends. And those trends have gone pretty much as pictured. Also, an amazing number of the writers' inventions have turned into reality. But its real importance probably lies in the tremendous influence it has had on the past twenty years of science fiction. At a guess, half the stories since then have been deeply in its debt, as half our newer writers have somehow derived from it. Some of that derivation has been bad, but that is no fault of the original.

Unfortunately, it seems to me that later novels by Cyril and Fred (yes, and by Fred and me) were too derivative. The one most certainly non-derivative was *Wolfbane* — probably their least known work and my personal favorite. It's an honest attempt to portray a really alien attitude and situation, surprisingly well realized. The goal was difficult to reach, and the result is sometimes difficult to read; but it's worth it. I wish more writers had been inspired by it.

Generally, I'm more pleased by the novels Fred later wrote by himself. *Slave Ship* not only has some beautiful thinking about things that began to become true years later, but it has sections of that empathy usually lacking in the collaborations. And a *Plague of Pythons* is a novel that shows better command of character and its development than any before it. A bit of that interior man is beginning to find ways to communicate, it seems. I have a feeling that his best novel is yet to come — and will always be the one to come, no matter how good his latest may be.

The development has been particularly impressive in his latest shorter work. When I read "The Gold at the Starbow's End," I could only call Fred up and tell him with delight that it was the best novelette I'd read in a long, long time. Then I read "The Merchants of Venus Underground" and found that the other had been no accident. He'd not only done the impossible task of making believable supermen in the first, but he'd even found a way in the second to write a good story about the hopeless world the scientists picture Venus as being. More important, though, both stories showed characters I could like, situations that were compelling, and totalities that left me happy about reading them.

Then I heard Fred deliver his speech, last year, as Guest of Honor — a much-too-long-delayed recognition of him. In it, he said that he'd grown tired of reading stories about twerps who were simply driven hopelessly by some terrible situation — and he was tired of

Donovan Had a Dream — TWS 10/47 (as by James MacCreigh).
Doublecross — PS Win/44 (as by James MacCreigh)
Drunkard's Walk — sr 2 GAL 6 & 8/60; Ballantine. NY, 439K, 1960, wpps 142, 35 cents (01743, 1969, 75 cents); Gnome Press. NY, 1961, pp 160, $2.75; Gollancz: London, 1961, pp 176, 13/6, Brit SFBC ed 1963; Penguin: London, 2521, 1966, wpps 1966, 3/6; as *Los Immortales*, tr. Andres Vergara, EDHASA. Barcelona, 1964, pp 205.
Dweller in the Ice, The — SSS 1/41 (as by James MacCreigh).

Earth Eighteen — GAL 4/64 (as by Ernst Mason); in *Digits and Dastards* (q.v.).
Earth, Farewell! — ASTONISHING 2/43 (as by James MacCreigh).
Everybody's Happy But Me! — IMAGINATION 2/56; in *Alternating Currents* (q.v.) as What to Do Until the Analyst Comes.

Father of the Stars — IF 11/64; in *Digits and Dastards* (q.v.).
Fiend, The — PLAYBOY 4/64; in *Digits and Dastards* (q.v.).
Five Hells of Orion, The — IF 1/63; in *Digits and Dastards* (q.v.).
Frederik Pohl Omnibus, The — Gollancz: London, 1966, pp 318, 25s. Contents: The Man Who Ate the World/The Seven Deadly Virtues/The Day the Icicle Works Closed/The Knights of Arthur/Mars by Moonlight/The Haunted Corpse/The Middle of Nowhere/The Day of Boomer Dukes/The Snowmen/The Wizards of Pung's Corners/The Waging of the Peace/Survival Kit/1 Plingot, *Who You?*

Genius Beasts, The — FUT 1/51 (as by James MacCreigh).
Gentle Venusian, The — see The Gentlest Unpeople.
Gentlest Unpeople, The — GAL 6/58; in *Tomorrow Times Seven* (q.v.) as The Gentle Venusian
Ghost Maker, The — BEYOND 1/54; in *Alternating Currents* (q.v.)
Gold at the Starbow's End, The — ASF 3/72; in *The Gold at the Starbow's End* (q.v.)
Gold at the Starbow's End, The — Ballantine: NY, 02775, 1972, wpps 192, $1.25. Contents. The Gold at the Starbow's End/Sad Solarian Screenwriter Sam/The Merchants of Venus/Shaffery Among the Immortals
Grandy Devil — GAL 6/55; in *Alternating Currents* (q.v.)

Happy Birthday, Dear Jesus — original in *Alternating Currents* (US ed) (q.v.).
Hated, The — GAL 1/58 (as by Paul Flehr); in *Turn Left at Thursday* (q.v.)
Haunted Corpse, The — GAL 1/57; in *The Frederik Pohl Omnibus* (q.v.); in *Tomorrow Times Seven* (q.v.).
Hitch in Time, A — TWS 6/47 (as by James MacCreigh)

In the Problem Pit — F&SF 9/73
1 Plingot, *Who You?* — GAL 2/59, in *The Frederik Pohl Omnibus* (q.v.); in *Turn Left at Thursday* (q.v.).
I Remember a Winter — original in *Orbit 11*, ed. Damon Knight (Putnam: NY, 1972, pp 226, $5.95).
It's a Young World — ASTONISHING 4/41 (as by James MacCreigh); in *Day Million* (q.v.).

King's Eye, The — ASTONISHING 2/41 (as by James MacCreigh).
Knights of Arthur, The — GAL 1/58; in *The Frederik Pohl Omnibus* (q.v.); in *Tomorrow Times Seven* (q.v.).

Let the Ants Try — PS Win/49 (as by James MacCreigh); in *Alternating Currents* (q.v.).
Life and a Half, A — IF 7/59 (as by Paul Flehr); in *The Abominable Earthman* (q.v.).

Making Love — PLAYBOY 6/70; in *Day Million* (q.v.).
Man Who Ate the World, The — GAL 11/56, in *The Frederik Pohl Omnibus* (q.v.); in *The Man Who Ate the World* (q.v.).
Man Who Ate the World, The — Ballantine: NY, 397K, 1960, wpps 144, 35 cents (597, 1962, 35 cents; 01946, 1970, 75 cents) Contents. The Man Who Ate the World/The Wizards of Pung's Corners/The Waging of the Peace/The Snowmen/The Day the Icicle Works Closed.
Mapmakers, The — GAL 7/55, in *Alternating Currents* (q.v.).
Mars by Moonlight — GAL 6/58 (as by Paul Flehr), in *The Frederik Pohl Omnibus* (q.v.), in *Turn Left at Thursday* (q.v.).

Martian in the Attic, The — IF 7/60; in *Turn Left at Thursday* (q.v.).
Martian Star-Gazers, The — GAL 2/62 (as by Ernst Mason); in *The Abominable Earthman* (q.v.).
Merchants of Venus, The — IF 8/72; in *The Gold at the Starbow's End* (q.v.).
Midas Plague, The — GAL 4/54; in *The Case Against Tomorrow* (q.v.).
Middle of Nowhere, The — GAL 5/55; in *The Frederik Pohl Omnibus* (q.v.); in *Tomorrow Times Seven* (q.v.).
My Lady Greensleeves — GAL 2/57; in *The Case Against Tomorrow* (q.v.).

Plague of Pythons, A — sr 2 GAL 10&12/62; Ballantine: NY, U2174, 1965, wpps 158, 50 cents (01745, 1969, 75 cents, Gollancz: London, 1966, pp 158, 16s; Brit SFBC ed 1966.
Punch — PLAYBOY 6/62, F&SF 1/63, in *The Abominable Earthman* (q.v.).
Pythias — GAL 2/55; in *Alternating Currents* (q.v.).

Rafferty's Reasons — FU 10/55; in *Alternating Currents* (q.v.).
Richest Man in Levittown, The — see The Bitterest Pill.

Sad Solarian Screenwriter Sam — F&SF 6/72; in The Gold at the Starbow's End (q.v.).
Schematic Man, The — PLAYBOY 1/69, in *Day Million* (q.v.).
Seven Deadly Virtues, The — GAL 8/58 (as by Paul Flehr); in *The Frederik Pohl Omnibus* (q.v.); in *Turn Left at Thursday* (q.v.).
Shaffery Among the Immortals — F&SF 7/72; in *The Gold at the Starbow's End* (q.v.).
Slave Ship — sr 3 GAL 3-5/56; Ballantine: NY, 192, 1957, pp/wpps 147, $2.75/35 cents (V2177, 1966, 50 cents; 01744, 1969, 75 cents); T. Allen: Toronto, $3.25; Oobson: London, 1961, pp 148, 11/6, Brit SFBC ed 1962; Four Square Books: London 857, 1963, wpps 127, 2/6 (1966, 1967, 3/6).
Small Lords — SFQ 2/57; in *Day Million* (q.v.).
Snowmen, The — GAL 12/59; in *The Frederik Pohl Omnibus* (q.v.); in *The Man Who Ate the World* (q.v.).
Speed Trap — PLAYBOY 11/67; in *Day Million* (q.v.).
Survival Kit — GAL 5/57; in *The Frederik Pohl Omnibus* (q.v.), in *Tomorrow Times Seven* (q.v.).

Target One — GAL 4/55; in *Alternating Currents* (q.v.).
Third Offense — GAL 8/58 (as by Charles Satterfield); in *Turn Left at Thursday* (q.v.).
Three Portraits and a Prayer — GAL 8/62, in *The Abominable Earthman* (q.v.).
To See Another Mountain — F&SF 4/59, in *Tomorrow Times Seven* (q.v.).
Tomorrow Times Seven — Ballantine: NY, 325K, 1959, wpps 160, 35 cents (01746, 1969, 75 cents). Contents. The Haunted Corpse/The Middle of Nowhere/The Gentle Venusian/The Day of the Boomer Dukes/Survival Kit/The Knights of Arthur/To See Another Mountain.
Tunnel Under the World, The — GAL 1/55, in *Alternating Currents* (q.v.).
Turn Left at Thursday — Ballantine: NY, 476K, 1961, wpps 159, 35 cents (01747, 1969, 75 cents). Contents. Mars by Moonlight/The Richest Man in Levittown/The Seven Deadly Virtues/The Martian in the Attic/Third Offense/The Hated/1 Plingot, *Who You?*.

Under Two Moons — IF 9/65; in *Day Million* (q.v.)

Voyage in Time, A — SSS 3/41 (as by Warren F. Howard).

Waging of the Peace, The — GAL 8/59; in *The Frederik Pohl Omnibus* (q.v.); in *The Man Who Ate the World* (q.v.).
Wapshot's Demon — SFS 7/56, in *The Case Against Tomorrow* (q.v.)
Way Up Yonder — GAL 10/59 (as by Charles Satterfield); in *Day Million* (q.v.).
We Never Mention Aunt Nora — GAL 7/58 (as by Paul Flehr); in *The Abominable Earthman* (q.v.).
What to Do Till the Analyst Comes — see Everybody's Happy But Me.
Whatever Counts — GAL 6/59; in *The Abominable Earthman* (q.v.)
Wings of the Lightning Land — ASTONISHING 11/41 (as by James MacCreigh)
With Redfern on Capella XII — GAL 11/55 (as by Charles Satterfield); in *Digits and Dastards* (q.v.).
Wizards of Pung's Corners, The — GAL 10/58, in *The Frederik Pohl Omnibus* (q.v.), in *The Man Who Ate the World* (q.v.).

WITH ISAAC ASIMOV:
Legal Rites — WT 9/50 (as by Asimov and James MacCreigh).
Little Man on the Subway, The — FANTASY BOOK #6 (1950) (as by Asimov and James MacCreigh).

WITH LESTER DEL REY:
No More Stars — BEYDND 7/54 (as by Charles Satterfield).

Preferred Risk — sr4 GAL 6-9/55; Simon & Schuster: NY, 1955, pp 248, $2.75; Dell. NY, R114, 1962, wpps 190, 40 cents. As by Edson MCann in all appearances.

WITH JOSEPHINE JUDITH GROSSMAN:
Big Man With the Girls, A — FUT 3/53 (as by James MacCreigh and Judith Merril).

WITH C M. KORNBLUTH
Before the Universe — SSS 7/40 (as by S.D Gottesman).
Best Friend — SSS 5/41 (as by S. D. Gottesman), in *The Wonder Effect* (q.v.).
Callistan Tomb — SFQ Spring/41 (as by Paul Dennis Lavond)
Critical Mass — GAL 2/62, in *The Wonder Effect* (q.v.).
Engineer, The — INFINITY 2/56; in *The Wonder Effect* (q v.).
Gentle Dying, A — GAL 6/61; in *The Wonder Effect* (q.v.).
Gladiator-at-Law — sr 3 GAL 6-8/54; rev — Ballantine: NY, 107, 1955, pp/wpps 171, !2.00/35 cents (F570, 1962, 50 cents; V2343, 1967, 50 cents; 01659, 1969, 75 cents); Digit: London, *O*157, 1958, wpps 160, 2s; Gollancz: London, 1964, pp 192, 15s; Brit SFBC ed 1965; Pan: London, X571, 1966, wpps 187, 3/6.
Gravy Planet — see *The Space Merchants.*
Mars-Tube — ASTDNISHING 9/41 (as by S D. Gottesman), in *The Wonder Effect* (q.v.).
Meeting, The — F&SF 11/72.
Nightmare With Zeppelins — GAL 12/58, in *The Wonder Effect* (q.v.).
Nova Midplane — SSS 11/40 (as by S D. Gottesman)
*O*ld Neptunian Custom, An — SSS 8/42 (as by Scott Mariner)
Prince of Pluto, A — FUT 4/41 (as by Paul Dennis Lavond).
Quaker Cannon, The — ASF 8/61; in *The Wonder Effect* (q.v.).
Search the Sky — Ballantine NY, 61, 1954, pp/wpps 165, $2.00/35 cents (F738, 1963, 50 cents; 01160, 1969, 75 cents), Digit: London, D352, 1960, wpps 159, 2s (R662, 1963, 2/6); Rapp and Whiting: London, 1968, pp 182, 18s; as *Die letzte Antwort*, tr. Walter Ernsting, Balowa-Verl Berlin, 1960, pp 269, DM 6.80; as *De landing van het ruimteschip*, tr. Ict Houwer, Het Spectrum: Antwerp, 1969, pp 189, 42 fr.
Space Merchants, The — sr 3 GAL 6-8/52 as *Gravy Planet* Ballantine: NY, 21, 1953, pp/wpps 179, $1.50/35 cents (381K, 1960, 35 cents; U2173, 1964, 50 cents, 01658, 1969, 75 cents); Heinemann London, 1955, pp 186, 10/6; Digit: London, D327, 1960, wpps, 2s (R499, 1961, 2/6), Penguin: London, 2224, 1965, wpps 170, 3/6; Walker. NY, 1969, pp 179, $4.50;as *Planete a gogos*, tr. Jean Rosenthal, Gallimand: Paris, 1958, pp 255; as *Uchu shonin*, tr. Shozo Kajima, Kayakawa- shobo. Tokyo, 1961, 190, 160 yen; as *Venus ar var*, tr. Borje Crona, Seelig: Stockholm, 1961, pp 216, 6.75 kr.; as *Ds mercadores espaco*, tr Brenno Silveira, Edart: Sao Paulo, 1963, pp 229, 500 cr.; as *Dbchodnici s vesmerem*, tr. Jarmila Emmerova, SNKLV. Prague, 1963, pp 182, Kcs 12. —, as *Operatsua Venera*, tr. N Kuznetsovol and T. V. Shinkar, Mir: Moscow, 1965, pp 263, ill . 0.48 ruble, as *Kosmosa Tirgoni*, tr. (Lettish) M Andersone and V. Jansevics, Zinatne: Riga, USSR, 1968, pp 300, ill , 0.54 rub;e as *Rummets kraemmere*, tr. Jannick Storm, Hasselblach: Copenhagen, 1969, pp 183; as *De Magnaten van de ruimte*, tr. David Brisk, Born: Assen, Netherlands, 1969, pp 191, Fl. 3.15.
Trouble in Time — ASTONISHING 12/40 (as by S. D. Gottesman); in *The Wonder Effect* (q.v.).
Wolfbane — sr 2GAL 10-11/57; exp — Ballantine: NY, 33SK, 1959, wpps 140, 35 cents (1661, 1969, 75 cents), Gollancz: London, 1960, pp 200, 13/6; Brit SFBC ed 1962; Penguin: London, 2561, 1967, wpps 160, 3/6; as *Wolfsklauw*, tr. Louis Mcermin, J. M Meulenhoff: Amsterdam, 1967, pp 191, Fl 2.90.
Wonder Effect, The — Ballantine: NY, F638, 1962, wpps 159, 50 cents (01662, 1969, 75 cents); Gollancz. London, 1967, pp 160, 18s. Contents: Critical Mass/A Gentle Dying/Nightmare With Zeppelins/Best Friend/The World of Myrion Flowers/Trouble in Time/The Engineer/Mars-Tube/The Quaker Cannon
World of Myrion Flowers, The — F&SF 10/61; in *The Wonder Effect* (q.v.).

WITH KORNBLUTH AND ROBERT A. W LDWNDES
Castle on Duterplanet, The — SSS 4/41 (as by S. D Gottesman).
Einstein's Planetoid — SFQ Spring/42 (as by Paul Dennis Lavond)
Exiles of New Planet — ASTONISHING 4/41 (as by Paul Dennis Lavond).
Extrapolated *O*imwit, The — FUT 10/42 (as by S. *O.* Gottesman).

WITH KDRNBLUTH AND DIRK WYLIE
Vacant World — SSS 1/41 (as by Dirk Wylie).

WITH LOWNDES AND WYLIE
Something From Beyond — FUT 12/41 (as by Paul Dennis Lavond).

WITH JOSEPH SAMACHSDN
Head Hunters, The — FU 1/56 (as by Pohl and William Morrison).
Stepping Stones — F&SF 12/57 (as by Pohl and William Morrison).

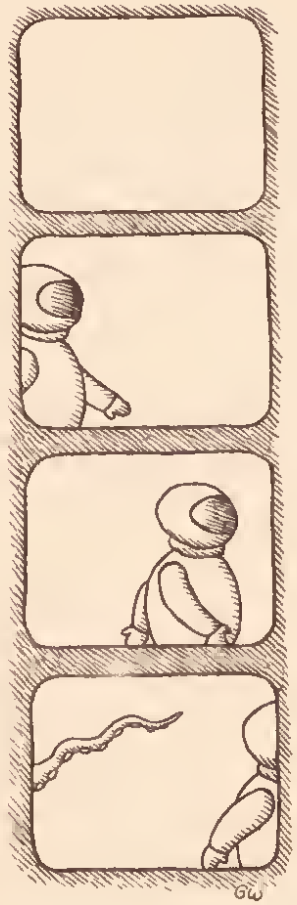
WITH JACK WILLIAMSON
Doomship — IF 4/73.
Reefs of Space, The — sr 3 IF 7-11/63, Ballantine. NY, U2172, 1964, wpps 188, 50 cents Dobson: London,
Rogue Star — sr 3 IF 6-8/68; Ballantine: NY, 01797, 1969, wpps 214, 75 cents
Starchild — sr 3 IF 1-3/65; Ballantine. NY, U2176, 1965, wpps 191, 50 cents; Dobson London, 1966, pp 191, 18s.
Undersea City — Gnome Press. NY, 1958, pp 188, $2.75; Dobson London, 1968, pp 188, 21s, Ballantine: NY, 1971, wpps 132, 75 cents.
Undersea Quest — Gnome Press: NY, 1954, pp 189, $2.50; Dobson. London, 1966, pp 189, 15s; Ballantine. NY, 1971, wpps 134, 75 cents.

WITH DIRK WYLIE
Asteroid of the Damned — PS Sum/42 (as by Dirk Wylie).
Highwayman of the Void — PS Fall/41 (as by Dirk Wylie)
Outpost of the Eons — ASTDNISHING 4/43 (as by Dirk Wylie).
Sky Test — SS 11/42 (as by Dirk Wylie)
Star of the Undead — FANTASY BDDK #2 (1947) (as by Paul Dennis Lavond).



BAIRD SEARLES

Films



BLOOD UP TO HERE

The horror film is usually viewed as one genre, and it doesn't often occur to people that some films so designated have a fantastic element and some are "realistic" — for instance, "Murders in the Rue Morgue" and "House of Wax." Usually I try to stick to the fantastic ones, but the dividing line is so thin that I hope I don't have to justify further talking about an example that has no fantasy per se, but that is so outré (as many are in style or content) that you readers might not have noticed if I hadn't pointed it out.

I so enjoyed the last Dr. Phibes film that I found myself really looking forward to the next Vincent Price flick — unduly optimistic in view of the many pot boilers he's made. But surprise! It's two in a row...up to a point. The premise of *Theatre of Blood* is this: An aging matinee idol who plays only Shakespeare is denied a Critics' Circle Prize. He commits suicide by jumping into the Thames from a considerably tall building. Two years later the members of the Critics' Circle are knocked off one by one, in singularly unlikely ways, all of which are relatable to various Shakespearian plays in the repertory of the late actor (who rejoiced

in the name of Edward Lionheart, by the way). It seems that Mr. Lionheart had not been killed, but washed up into a gang of wharf rat meths drinkers, whom he cajoles into acting as supporting cast for his production number murders. His leading lady is his daughter Edwina, no mean actress in her own right, and he secretly refurbishes an abandoned theatre as a setting. The plot is simply the nine murders, and the ingenuity of each is more amazing than the last.

Golly, what style and wit went into this! For one thing, the supporting cast is a who's who of great British character actors: Harry Andrews, Coral Browne, Robert Coote, Jack Hawkins, Michael Hordern, Robert Morley, Dennis Price, Milo O'Shea, and — er — Diana Dors. Diana Rigg is Edwina and she *is* a noted Shakespearian; she also does a brilliant job as murderous assistant, innocent bereaved daughter, and male impersonator. Price has a field day wallowing in the Shakespearian roles, but never goes too far. The gang of meths drinkers are a wordless, daft chorus, Hogarth updated, tittering, staggering, pawing and killing (there is even a credit line — "Choreography of meths drinkers").

The Shakespearian lines and killings are beautifully woven throughout the contemporary texture, and there's some good black humor. As Price nails the top on a barrel of wine (or butt of malmsey, if you will) in which one critic has been drowned, he says, "I hope he travels well." When another critic learns that one of the circle has been killed by the extraction of a real pound of flesh, he mutters, "Only Lionheart would rewrite Shakespeare."

Yet this is a disgusting movie. All this style, all this wit, all this intelligence is just a frame for the most graphic and needless bloodletting I've ever seen. Sorry, readers, I don't like to use this column for personal crusades, but I believe this to be pertinent. And I've had it. For a long time I've laughed at the uptights who have complained about violence on TV and the movies. I approved (and still do) of the eyeball slitting scene in Un Chien Andalou," the brilliantly photographed killings in "Psycho," the stylish horrors of "Dr. Phibes Rises Again." They all had some point. But I feel that "Theatre of Blood" was made as an excuse to show Price, mugging like Carol Burnett, sawing the head from a living man drenched by gushing arteries, and carving out a pound of flesh and tossing it about, and I revolt. I live in New York City, and I am surrounded by cruelty. When I see a film like this, degrading a genre I love and using

fine actors and great literature to deck out and justify violence catering to the bloodlust of the Neanderthal mob, I revolt. I loathe the very idea of censorship, and I don't know what the answer is, aside from a plague that will cleanse the Earth of man. As my companion at the film said, "*This* is pornography. Sex isn't. Sex isn't disgusting." But this kind of gratuitous violence is...or it should be. And frankly, I'm sure that this review will send half of you running out to see it. I hope quite sincerely that you get severely mugged on the way back from the theatre.

Late, late show dept.... Dan ("Dark Shadows") Curtis, who produced that recent made-for-TV "Frankenstein," came up with a "Picture of Dorian Grey," also made in two parts for the tube, which I could find no fault with save that it kept bringing back the 40s film with Hurd Hatfield of the icy beauty, Angela Lansbury singing "Goodbye, Little Yellow Bird," George Sanders mouthing Wilde's lines to perfection, and those demonic portraits by the Albright brothers; any dramatization of this work stands or falls on the portrait(s). Curtis also has in the works a new "Dracula" and a new "Turn of the Screw" which leads us to the...

Things to come dept...If "Starlost," the new TV serial that Harlan Ellison is working on with Douglas Trumbull, is half as exciting as Mr. Ellison says it's going to be, it should be something. Based on the spaceship-that-is-a-world-unto-itself-and-lost-yes-lost theme (see Heinlein's "Universe" and others), I have high hopes for it (but Mr. Ellison could give Oedipus high hopes for a happy marriage, so we'll see). At this writing, the project is bogged down because of a writers' strike; hopefully that will be cleared up in time to make the fall season.



"It's for you, Mohammed!"

Barry Malzberg, a regular contributor to F&SF since the distinguished "Final War," (April 1968, as "K. M. O'Donnell"), was recently announced as the winner of the John W. Campbell Memorial Award for best sf novel of 1972. The award was presented at the Illinois Institute of Technology for Mr. Malzberg's novel, BEYOND APOLLO (Random House).

The Helmet

by BARRY M. MALZBERG

Wearing the helmet I am just like everyone else and the world makes sense. The war is not an endless war but a necessary defensive action in the interests of peace and will end shortly. The Masters are not creatures who lie to us and keep us in bondage but lords of great wisdom and justice who, in the rooms of this great building, prepare us kindly for the world which we will in turn someday ourselves rule. The others who accompany me through these corridors and class-rooms are not fellow victims but fellow students, and in the long or short run, everything is for the best. That is why I have been assigned to wear the helmet, and it is why I like to have it because I cannot stand the way the world looks without it but for certain reasons having to do with medical science and which I do not understand —

Well, the Masters say that for one or two hours every day I must remove it to rest. It is related to sensors, they tell me, or nerve sheath exhaustion, but the explanation mystifies and I go through my periods without the helmet closing my eyes as much as possible, counting the moments until I can don it and make the world sensible again. It is important that I wear the helmet and necessary that I wear the helmet, and the Masters promise that in not too much longer a time the nerve sheaths or sensors will have corrected themselves and I will be able to use it for weeks at a time.

How I hope so.

Now it is one of my hours without the helmet. Standing by the window, looking from this great height at the buildings of the city, I know fear of the machinery hanging in the distance, fear in the

very smell of the heavy air which hangs within this enclosure. Listening to Serafino as he talks about the wonders of our age, I close my eyes. Serafino is my closest friend, perhaps my only friend at this time, but the fact is that I like him no better than any of the others; with the helmet I find him engaging and friendly but without it he strikes me as dull and stupid. How I envy him for not needing the helmet as I do to enjoy the life we have been given! "Isn't it beautiful, Jonno?" Serafino asks, playing idly with his fingers. We are in a free time period between instructions and have come to this window to look upon the city. "Mankind has striven for ten thousand years to create a civilization like this and we are the ones to inherit it. Isn't that wonderful? The city gives us everything and we will never have to leave it."

I do not think that it is wonderful and without the helmet the thought that we will never be able to leave the city fills me with disgust, but I do not want to discourage Serafino or have him leave me; in these periods without the helmet I am very lonely and easily frightened. "I suppose so," I say, "I suppose it's a great thing," and then turn to find that unexpectedly one of the Masters has come upon us. They move so silently in the halls and with so much grace that it is almost impossible to be prepared for their entrance, and therefore it is best to make sure one is following the laws of obedience at all times. "Hello Serafino," the Master says, "Hello Jonno."

They know all of our names although we do not know theirs. They are simply *Masters* indivisible. Some of them are tall, others are short, some are older and some younger but we have been advised that each may fulfill the function of all and that it would be a serious mistake to personalize any of them. This is advice which is worth being taken seriously because the Masters never make idle statements. Everything that they say is always filled with significance, and the one true path of difficulty lies in not heeding them.

"Hello, Master," my friend says and bows slightly as is the approved procedure. He smiles comfortably and turns back to the window then, for it is a rule that if the Masters do not wish to prolong a conversation, students will not call unnecessary attention to themselves but will merely continue their regular activities. "Hello, Jonno," the Master says again to me, somewhat more sharply.

"Hello, Master," I say and then turn from him. Without the helmet, I see the Master as an ugly alien creature with green skin and scales,

large, staring eyes and claws, an ugly excrescence on those scales but I remind myself that this is merely an illusion caused by my failure to adapt and that I must in no way show my loathing, fear or disgust. In the past while not wearing the helmet I have once or twice let the hallucinations get the better of me and have been taken into small rooms for education, something which I do not want to discuss.

"How are you?" the Master says, seeking conversation.

"Fine. I am fine."

"I note that you do not wear the helmet. Why is this so?"

This must be a new Master, one not acquainted with the special rules and procedures of my case. "I can't wear it all the time yet," I say, "for one or two hours a day it must come off."

"I have heard no word of this in your case," the creature says, "malcontents are instructed to wear the helmet at all times. I am displeased."

"But it's true!" says Serafino, taking my part, "he can't wear it all the time yet. That's why I'm keeping him company; so that the fear does not affect him."

"No one asked you to speak," the Master says angrily. "You will speak only when contact is indicated and you will be dealt with for this. I want you to go at once and place yourself in quarters."

Pale, shaking, Serafino detaches himself from the balcony and walks quickly through the hall. It is pointless to argue with these Masters for any reason, and as this can only deepen his problem, Serafino leaves without a word. Watching him I can see from the slump of his shoulders, the faint tremors in his legs, that he is very frightened. I am very frightened also, then. I turn from the city and try to look past the creature, but he catches my gaze and I cannot break past. I want to dive past him and run but know that leaving without excuse is the most serious offense, possibly, of all, and therefore I stay. The Master looks at me, scales fluttering in the breeze. "Come here, Jonno," it says and beckons to me. I move there, and then with a gap of inches, am halted. The eyes are very large and round in the creature's empty face. "You know the rules," it says, "the helmet at all times."

"Yes," I say. It is pointless to argue with them. Either truly or untruly he does not know my case, but there is no use in arguing with them because things only become far worse. "Yes."

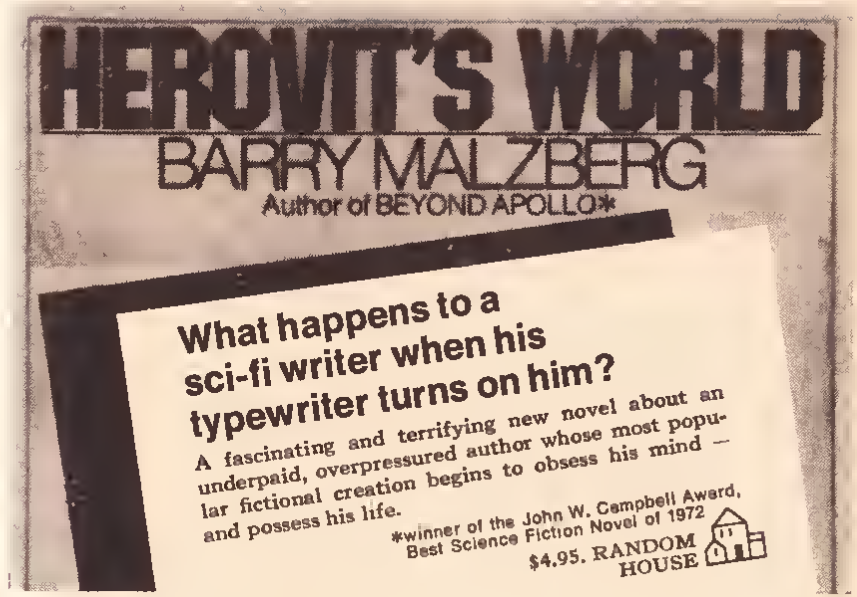
"You have broken those rules."

"Yes. Yes I have."

"Therefore you must accept punishment."

"I will. I do."

"And the punishment is —."



The Master pauses, flutters scales again, seems to be pondering. "The only fair punishment," it says, "is this. You will never wear the helmet again. You must go through the rest of your life without the helmet. For failing to take the terms of your salvation you are therefore not saved."

And it walks quickly from me then, leaving me rooted in place, sickened. The corridor sifts toward grey, the breeze through the balcony makes me shiver. I feel a chill unlike any I have know before and know then, know well, the cruelty and cunning of the Master's punishment: the first touch of the realization then that I will have to go through the rest of my life, seeing and knowing it exactly as it is.

We wish we had time to do more reprint research (hint: readers' suggestions always welcome) in order to uncover good stories like this amusing account of an 1887 expedition to Mars (first published in the Saturday Evening Post). New readers may not know the name of Ward Moore, however Mr. Moore wrote a good deal of fine sf in the 50's, most notably his classic alternate worlds story (if the South had won the Civil War) "Bring the Jubilee."

Dominions Beyond

by WARD MOORE

Up until its report was known, the Murphy-Gobiniev-Langois-Alemeda-Mutsuhara expedition to Mars in 2002 was thought to be the first successful one. Truth is, the first flight was achieved, quite accidentally, by a Humphrey Beachy-Cumberland, in 1887, the year of Queen Victoria's Golden Jubilee.

His full name was Humphrey Howard Clarence Beachy-Cumberland, and he was a distant — very distant — connection of the Churchills. Humphrey rather considered the Churchills pushing; he had no handle in front of his name and held a low idea of peerages. The remote possibility of a peerage unnerved him. There had been Beachys at Agincourt and Cressy; Beachy-Cumberland had been a good name at Naseby and Ramillies and Prestonpans and Salamanca, and he didn't propose to change it for Lord Whatsis or the Earl of Nowhere. Even as a young man of twenty-five — he had been born a twelvemonth after the Prince Consort died — he had solid principles. He had a lively interest in Progress (improved housing for tenants; free lectures for the laboring classes) and a sense of responsibility (frequent inspection of drains; pensions for superannuated servants).

Progress accounted for the presence of Giles Pundershot in Humphrey's house. Certainly not compatibility. Pundershot was a cad in every sense; he was baseborn, he misplaced the letter H, he borrowed money without meaning to repay, he read other people's mail, he seduced housemaids, he wore the tie of a school he had not attended. Given the

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opportunity he would probably have shot foxes. He was also a genius of the first magnitude, a physicist so far ahead of his contemporaries that no university tolerated mention of his name, no scholar of standing bothered to refute him. Humphrey gave him a sovereign a week, a couple of rooms in the servants' wing, and a reasonable charge account at an ironworks of which he was a director. He also allowed him the help of an undergardener and a half acre of ground for the construction of a flying machine. Both Humphrey and Pundershot were sure that heavier than air flight would come before 1900.

Pundershot's flying machine was constructed along revolutionary lines. It was, in fact, a projectile, a projectile without a cannon. "Magnetism," explained Pundershot; "ettrection and repulsion. Entigrevity, in a word. Spurns the earth."

"Rilly?" asked Humphrey politely.

"Trouble so far is, it spurns it too bloody —" Humphrey winced "too bloody much. If I'm right the bugger —" Humphrey winced again "— will take off at something like three hundred miles a second."

"Too much," commented Humphrey. "Too fast."

Pundershot looked at his patron as though he thought him half-witted. Which he did, and which was an injustice to Humphrey. "Eighteen thousand miles a minute," said Pundershot; "million miles in an hour. Speed like thet is worthless."

"Rah-ther," agreed Humphrey.

"Well," said Pundershot, gloomily cheerful. "Expect I'll have to tear it down and put it together eggayne."

Humphrey looked faintly dubious. He knew to a farthing what the projectile had cost him, and experience had taught him that a second one would be at least four times as expensive. He didn't grudge Progress the money, but he sometimes wished Progress had come to him in the guise of a gentleman instead of a cadging bounder.

"Er — what's it like inside?" he asked, putting off the moment of nodding approval to Pundershot's revised experiment.

"Nothing an emeteur'd understend. False ull, suspended and padded, oxygen tenk — machine's airtight — megoetic connections: 'on' and 'off'. Bit crowded on account of the distance between inner and outer ulls, full of the shock-ebsorbing mechanism. Barely room for one, if e's not too long, and dark. Want to have a look around?"

Humphrey didn't, but a combination of tact — wouldn't

Pundershot be offended if he didn't show interest? — and shrewdness — after all, with a fellow like that the whole thing might be papier-mache — forced him to walk over and peer through the open hatch.

"Get in if you like," suggested Pundershot, not too enthusiastically. "Can't see much, but you can morrerless feel things."

"Well," said Humphrey doubtfully. "Well. All right."

Pundershot's description of the interior as a bit crowded was understatement. Humphrey had a foretaste of the coffin in which he assumed he would someday lie. He could see nothing, and though the padding was yielding and comfortable enough, he wondered, lying flat on his back, if he would be able to wriggle himself out.

"How —" he began.

"Ere," exclaimed Pundershot; "watch what you're doing. The ottermatic atch-closer's right next to your arm."

Naturally Humphrey jerked his arm as if stung. It hit the button and the hatchcover snapped shut. "I say —" he cried in dismay, struggling to unpush whatever he had pushed and open the cylinder again.

Instead he connected with the unseen "on" button. The projectile rejected the gravity of earth with utter repulsion. Forty-eight million miles off, give or take a few furlongs either way, the planet Mars winked redly. The nose of the machine pointed precisely for it.

Humphrey Beachy-Cumberland's last thought as he tore through the earth's gaseous envelope was that he had provided a pension for Pundershot in his will. He wished he hadn't.

Something less than forty-eight hours later, one who had resigned himself to death, battered, bruised and a little crazy, realised that the projectile had come to rest. He pushed the hatchcover button and staggered out onto the Martian sands.

The Martians who surrounded him had lapsed back into barbarism a thousand generations before. The great cities had eroded into dust, knowledge had faded into fable and incantation, the delicate balances of a completely free, egalitarian, non-violent society had collapsed and been replaced by small tribes so barbarous that leadership was not inherited but assumed by the strongest or most cunning. Even so, Humphrey was lucky; practically all Martians had abandoned cannibalism.

He looked up into the impassive faces — the Martians all topped him by at least a head — noting the coarsely woven garments, the pale pigmentation, wide chests, loosely held knives and hatchets; a

welcoming committee with a rather severe concept of its function. At the moment Humphrey was almost exclusively concerned with his dry throat and leathery tongue. "Water — please," he gasped.

One of the Martians uttered a series of sharp syllables. Bother, thought Humphrey; I shall have to teach them English. What a nuisance.

The unintelligible sounds must have had a humorous cast, for the other Martians laughed briefly and ominously. Humphrey made motions of raising a glass to his lips; when there was no sign of comprehension he cupped his hands and made exaggerated drinking noises. The joking Martian stepped close to him and suddenly drew an ugly iron knife.

"Here!" said Humphrey sharply; "put that thing down. You might hurt someone with it."

Crude humor had never appealed to him. He turned half away and repeated the cupping and drinking pantomime. The knife wielder paused.

"Water," repeated Humphrey patiently, raising his voice as best he could despite the discomfort of his throat, knowing that foreigners always manage to understand sooner or later if spoken to loudly and slowly enough.

Another Martian approached, whirling his ax over his head. "Stop that nonsense," ordered Humphrey. "Stop. It. At *once*. There, that's better. You people will have to learn that this sort of thing can be dangerous. Now show me the water. Wa-ter. Wa-ter."

A couple of hours later, after he had been threatened with death or mutilation in a dozen different ways — avoided only by staring at the would-be assassin and assuring him coldly that this was no way to behave — Humphrey was on his knees at the edge of an unbelievably wide canal assuaging his thirst with the dark, brackish water. His captors stood in a semicircle behind him, by no means intimidated by this strange, stunted creature who seemed without normal fear — without normal sense either — and who did not speak as everyone else spoke. By no means intimidated, but certainly puzzled.

Humphrey gazed across the canal. "Must be all of ten miles wide." He peered up and down to where the canyon disappeared into the horizons. "No real rivers, I suppose. Well, have to make a start somewhere; call this the Thames. Thames Canal."

He turned to the Martians. "Thames," he said distinctly. "Teh-mmms. Cah-nal." He pointed to the length and breadth of the engineering work which had been built by their ancestors.

"Fenutch goobra," muttered one of the Martians.

"No, no," insisted Humphrey. "Thames. Thames Canal." He moved back to the water and washed his face and hands. "Have to do something about a decent bath. The beggars have iron; ought to be possible to make some sort of tub."

Daily tubs were a necessity, but other necessities took immediate precedence. He judged his hosts primitive enough to sleep in the open, a course he did not propose to follow. Discomfort hardened a chap, made him fit, but privacy was the basis of civilization. And Humphrey wasn't giving up civilization, even under the present trying circumstances.

"Well," he said briskly; "can't stand about all day. What about a spot of food now? Food, you know. Fooo-d. Eat."

Humphrey was distressed to discover just how backward the Martians were. After the crude humor of threatening a stranger with all sorts of beastly tortures and executions, he hardly expected the culture of Manchester or Birmingham flourishing among the tribesmen. He did not look for niceties like umbrellas or the philosophy of Mr. Martin Tupper; *Punch* and plumpudding were clearly as far beyond them as the music of Sir Arthur Sullivan or the poetry of Mrs. Hemans. But as the conditions under which they lived were revealed he became more and more pained.

For one thing they did not have the institution of the family. The tribe was divided along the lines of — hem — gender. Boys remained with the women until they were old enough to join the men in the endless war with other tribes, returning after that only for — for carnal purposes. It was all thoroughly immoral. Worse than that, since fatherhood was purely a matter of guesswork, there could be no inheritance, primogeniture, or entail. Humphrey could not stand by while this sort of thing went on without seeming to give it his approval.

His captors were still trying to nerve themselves to kill him according to custom and precedent, but merely trying was a little harder everyday. It was quite absurd and a trifle indecent to violate custom and the fundamental code — you shall not let a stranger live — this way, but never before had a stranger been so completely uncooperative. He refused to shrink from a downchopping ax or draw back from a thrusting knife. He could not, they soon discovered, even be properly murdered in his sleep; attempts at stealthy approach to the rough shelter he had made of woven rushes from the canal bank were always met by an alert and inquiring questioner who spoke loudly and disconcertingly.

Well, after all, there was no pressing reason why Mister — this was as much of "Mr. Beachy-Cumberland" as they found it convenient to pronounce — shouldn't just as well be despatched next month. Or even the month after. As long as convention had been flouted by failing to bash his brains out or cut his throat instantly there was no longer any great rush. The Martians were, in such things, quite easygoing. Meanwhile, now that they understood some of the things Mister said, it was conceivable they could learn from him some tricks to overcome the neighboring tribes.

Humphrey for his part had no intention of encouraging their internecine warfare. To fight for Queen and Country was an occasional disagreeable — and glorious — necessity. There was neither necessity nor glory in these aboriginal clashes. They were merely nasty.

Nevertheless he inadvertently boosted the power of the tribe and his own prestige. In these regions at last, whatever might be true elsewhere, there were neither trees nor animals — as a lover of roast beef and yorkshire pudding he particularly deplored the absence of animal life — but only on abundant variety of annual vegetable growth. As a consequence, weapons which at a similar stage of development would have been made of wood or bone were crudely forged from iron. There was no lack of this metal lying oxidized on the sands. Coal too was plentiful, cropping up in ridges which broke through the drifting sands, sometimes at surprisingly short distances from the miles-wide oases.

Humphrey, as a stockholder and director in an ironworks, had conscientiously taken an interest in the product. Though no metallurgist, he could make coke from coal for a stronger, lighter metal than the Martians used for their clumsy tools. Working at first alone, and then with a few of the tribesmen who thought it amusing to imitate him, he produced knives which cut rather than sawed, hoes to cultivate the vegetation with, for heavier food crops and stronger fibers for weaving, shovels and picks to dig the less common ores.

The Martians saw the advantage of his methods and promptly made themselves better battle-axes. Humphrey considered battle-axes distinctly contrary to Progress. "Look here," he said to a young Martin, one who had been among the first to copy his manner of smelting and forging. "This won't do, you know."

"Squirrup chedges," murmured the young Martian.

"Nonsense," answered Humphrey sharply; "you can talk properly enough if you put your mind to it. Now then, why do you people want to fight among yourselves all the time?"

"Kerestheme," said the Martian. "Norov."

"Speak up," ordered Humphrey. "None of your gibberish."

"Foo-wud," tried the Martian haltingly; "wo-min."

"Yes," reflected Humphrey. "Yes. Of course." He pondered a while. "Your name's Tom Smith, isn't it?"

"Mogolum Tu."

"That's not a name, it's a whatyamacallit for a slide-trombone. Believe me, you're better off as Tom Smith, much better off. Now then, about food and — er — women. You see how easy it is to get more food by using better hoes. Now we can rig up a plow — no animals, nuisance — and by planting instead of trusting to luck there will be more food than the tribe can eat, even though everyone feasts every day. Food enough for all the tribes."

"Se — eyess!" marveled Tom Smith.

"As for — uh — women, that can be managed better too." Delicately he explained the advantages of monogamous marriage.

"E-yes!" exclaimed Tom Smith, never again to be Mogolum Tu or contemplate decapitating Mister; "E-yes!" exclaimed Tom Smith enthusiastically.

The problem on Humphrey's mind had nothing to do with the iron waterwheel which now creaked and clanked in the Thames Canal to bring irrigating water to sands uncultivated for millennia, nor the improved looms for finer weaving, nor negotiations with still another tribe several hundred miles away who were considering joining the peaceful and prosperous federation. It did not even concern the group of dissidents around Henry Green — formerly Thotcho Gor — who protested that Tom Smith and Mister were going too far and too fast.

Humphrey's problem was Holy Orders. Broad Church himself, he knew little of theology, always having left such matters to the vicar. The phrase, Apostolic Succession, floated around in his mind: one could not instruct selected natives in the gist of the Book of Common Prayer — and Humphrey could remember long passages — and set them up to administer the sacraments. To think of it smacked of nonconformity. Yet if something were not done, how were the marriages he had arranged to be regularized?

True, even irregular monogamy was preferable to the old conditions, but it was still irregular. And what of baptism and burial? When he himself was committed to the earth — Mars, then — he wanted the prescribed service read.

Meanwhile he kept a growing group of assistants vastly busy. Tom Smith remained his closest disciple, but Tom had his hands full carrying out the projects Humphrey originated, explaining, placating, persuading. For new reforms and inventions Humphrey depended on men who had only recently stalked human game and even new hankered sometimes for the old ways. He was amazed at how quickly they grasped ideas or theories, often hazy in his own mind, and translated them into practice. He knew paper could be made by pulping woody fibers; they found the plant best suited and devised means of production. He outlined the principles of typecutting and setting; they contrived a press. He had rough notions about glass and cement; they made panes and bowls which were at least translucent and concrete which promised to remain hard.

Reluctantly he compromised on the question of Holy Orders. A ship's captain, he argued, performed valid marriages and commited bodies to the deep. Why not the captain of a planet far from the shores of earth? He knew his logic grew increasingly shakier the further he extended it, but something had to be done. He soothed his conscience by telling himself he was not ordaining clergy, merely delegating functions, and he was careful to insist that his students title themselves deputy vicar or acting curate. At least now whatever happened to him — and he was quite aware that Henry Green's anti-Mister faction had grown dangerously large since the extension of civilization to the tribes beyond the Serpentine and Avon Canals — there would be men to teach the young reading and writing (Humphrey's Latin had become so dim in the years since Harrow that he reluctantly gave up the idea of including this essential in the curriculum) and to instil a sense of decorum into those whose behavior might otherwise become scandalous.

In 1897 they launched the first steamship on the Thames Canal. Humphrey had long ago worked out a Martian calendar using earth years; its defect lay in his uncertainty of the exact date of his arrival, so he was never quite easy about celebrating the Queen's Birthday, and Boxing Day was distinctly a hit-or-miss affair. But the launching unquestionably occured in 1897, ten years after the projectile landed. The ship was a

small, shallow-draft, cranky affair with an unpredictable boiler and inefficient paddlewheels. However it worked, and it carried Humphrey's emissaries to strange regions of the planet where exotic plants grew and copper and tungsten were as plentiful as iron, where Mister was only a name in a vague legend, and the churning ship was as often met with missiles as with audiences receptive to the message of peace and Progress.

This was the year banknotes were first engraved to his satisfaction and the Martians taught the fine points of property and to sell something for eight shillings sixpence ha'penny instead of giving it away. Wages and real estate and commerce — Humphrey drew the line at a stock exchange; he did not approve of brokers and all they implied — profits and dividends and unemployment; what a blessing civilization was.

The issue of Henry Green could no longer be put off; the grumblings of his followers grew ever louder. Humphrey had broadsides printed which explained the parliamentary system, responsible government, elections and all the glories of constitutional rule. At the first election Tom Smith was returned for New Brighton on the Tweed Canal, and enough of his followers were elected to enable him to form a government with himself as Prime Minister and Chancellor of the Exchequer, and Robert Jones (formerly Poromby Lusu) as First Lord of the Admiralty. Henry Green was, of course, Leader of the Opposition. Tactfully Humphrey did not insist on the inclusion of the adjective Loyal in his title.

One of the first acts of the new House was to provide penalties for marriage with a deceased wife's sister, another established a postal service, a third made it mandatory that all judges and barristers wear wigs in court. The introduction of a Defense of the Realm bill however was vigorously fought by Green who protested it was designed to stamp out the last vestige of ancient liberties ("Shall we yield our own customs to the airy theories of an alien from an inferior planet?" Cries of Hear! Hear! from the Opposition; and Shame! Slander! from the Treasury Bench). By-elections in newly added territories weakening Tom Smith's party, Parliament was dissolved and the Prime Minister appealed to the country.

Smith was again returned for New Brighton on Tweed, but Green's party won a majority of seats. During the polling dark prophecies had been made for this event, yet the new Conservative — for so Green now called his party — government took office without

friction and immediately passed a Defense of the Realm Act over the hitter protests of Smith's Liberal opposition.

The political situation settled — Humphrey would naturally have preferred a Liberal victory, but he did not think it proper to express a preference openly — economic and religious conditions flourishing, attention was now devoted to education and culture. A weekly *Times* was established with expectations of becoming a daily; erection of a building to house a public school was begun; the printing of an *Encyclopaedia Martiana* was projected. A Philosophical Society and an Art Academy were discussed and steps taken to found a philharmonic orchestra. Humphrey had the alloyed pleasure of turning the first telescope toward the earth and the pure joy of eating the first Martian crumpet and drinking the first Martian (imitation) tea.

Humphrey was only fifty-five in 1917, the year when the last uncivilized tribes finally gave in and joined the rest of the planet. That was the year Tom Smith admitted he had lost his popularity and gave up the leadership of the Liberals to Herbert Noro. Humphrey's influence in the matter of name-changing was weakening; the clergy buttressed it so far as first names went, but the tendency to retain the old Martian surnames grew. It was also the year Humphrey started the building of Cumberland House and landscaping the flower gardens leading from it down to the Severn Canal.

Truth was that though fifty-five was a ridiculously early age to consider retirement, Humphrey was finding less and less to do. Everything was in good hands. Even though he was inclined to look askance at some of the doings of his proteges — the pictures at the Academy's first show seemed positively *French* to him; the speeches that fellow Dufo was making to the still restive tribes beyond the Humber Canal were pure demagoguery — he would not deny that the Martians had taken hold amazingly. There was good stuff in them.

It would be inaccurate to say he had never considered marrying. He was not entirely convinced that mixed breeds invariably exhibited the worst traits of both strains. And sometimes — Still, there might be something to it, and he did not relish the thought of a great-grandson dragging the name of Beachy-Cumberland in the Martian sands. Even more cogent was the old problem of solemnization. Granted the inevitability of his compromise for the Martians where the alternative had been continued

immorality, it did not follow that he himself had any right to take advantage of it. The captain of a ship could perform valid marriages and possibly — possibly — delegate that authority, but could the captain of a ship officiate at his own marriage, even through a deputy? Furthermore, marriage to a Martian might weaken the tradition he had done so much to establish.

So Humphrey, after a brief moment of temptation quickly forgotten, did not marry. Nor did he travel much; when you've seen one Martian canal you've seen them all. He revised and enlarged the plans of Cumberland House; he supervised the masons and glaziers who built its walls of iron, concrete and glass; he kept the gardeners hard at it laying out walks and vistas to suit his taste. He gave some time in compiling a new edition of his scraps of the Book of Common Prayer.

But largely he spent his days talking over old times with his contemporaries, often those who had once plotted to kill him. Much of the staff at Cumberland House were men who had never quite adapted themselves to the new ways, or having adapted, now found them less congenial. Humphrey and they recreated the past and both, for different reasons, felt better for it.

The evening of Guy Fawkes' Day he sat down as usual, dressed for dinner — the Martians now wove a very satisfactory broadcloth and the black dye from the region around the Mersey Canal was tolerable — he seemed in excellent health and spirits. His butler brought in a plate of lichen broth and was about to withdraw when Humphrey stopped him with a raised hand.

"Wait — James — I — I —"

The butler rushed to catch his collapsing form, but himself an old campaigner, he knew death when he saw it. The rest of the servants, summoned quickly, only confirmed his diagnosis.

He was buried in his gardens; a stone he had designed was put up over his grave.

HUMPHREY HOWARD CLARENCE BEACHY-CUMBERLAND, ESQ.

Formerly of Buckinghamshire

Who always remembered the land of his birth.

Sean McDairmuid Murphy was the leader of the United Nations Interplanetary Edpedition of 2002, so far as the representatives of the other nations — Yasu Matsuhara excepted — acknowledged any leadership. It would be more accurate to call Dr. Murphy the senior scientist aboard the *WAC Fieldmarshal* (there had even been arguments over the name of the ship, but since it had been built in the United States with exclusively American money, the others grumblingly gave in). Dr. Murphy was also the anthropologist.

Sergei Gobiniev was the ethnologist who carried on a cold feud with the philologist, Hyacinthe Langois, whether or not Martian civilization would have terrestrial analogies. Luis Alemeda, the geologist, considered the feud absurd, for he was convinced neither human life nor any history of it would be found on Mars. Dr. Matsuhara, the botanist, thought Alemeda was carried away by his specialty; he himself had a perfectly open mind on all subjects but botany and baseball. He was sure he would find bamboo, or something very like it, as he was that Osaka would win the pennant and series in '03. '04 anyway.

Originally the expedition was to have included a sixth member, Sir David Rabinovits, but since the United Kingdom withdrew from the Canadian-Australian-New Zealand-West Indian Commonwealth in 1995, Westminster had shown little interest in new horizons. Sir David's name had been dropped from the list and the expedition departed without a biologist.

"As well," said Langois. "Who can tell what comes from perfidious Albion?" (Dr. Langois was in fact a great admirer of the entente cordiale, but he liked to think of himself as a Bonapartist and enjoyed using archaic terms.)

"'Perfidious,' yes," muttered Gobiniev. "A rootless cosmopolitan gilded by a corrupt imperialist Labour government; undoubtedly he was assigned to work against the Peoples' Democracies. Like the toadies of the socalled Fifth Republic —"

"Don't be silly," said Sean Murphy. "There's much to be laid at the door of Johnny Bull — Ireland is still divided — but sending out Dave Rabinovits as a political agent wouldn't be one of them. They wouldn't pay Dave's way because they don't care about Mars or the UN or anything else but some silly celebration they're having this year."

The *WAC Fieldmarshal* made a beautiful landing not ten miles from the spot where Humphrey's projectile had plowed up the sands. The whole area was a Planetary Park, kept primitively intact.

"Desert," cried Dr. Alemeda triumphantly. "Sterile desert. What did I tell you?"

"There will be men — or at least intelligent life," said Hyacinthe Langois obstinately. "I'm sure those clusters in the telescope were cities." A dustcloud appeared, resolving itself into a large group of

people. "What did I tell you? Men! And I hope, women also."

"I would swear," said Matsuhara, "that that colored spot among them is a flag. And further that it is a Union Jack."

"A plot!" shouted Gobiniev; "some filthy trick to discredit the USSR!"

"Impossible," said Murphy. "Some evolutionary quirk."

An odd looking donkey engine mounted on wide-tired iron wheels puffed black smoke ahead of a car, not unlike an ancient British railway carriage. Close behind it was the crowd on foot. "Hardly looks dangerous," murmured Matsuhara.

The engine halted a few feet from the *WAC Fieldmarshal.* The carriage doors opened and Martians came forward, dressed in tubular trousers and double breasted coats. "Tall enough," remarked Murphy. "Hate to play basketball against them."

"A tall, wise race," said Matsuhara mystically.

The leader of the Martians, silk hat in left hand, walked forward and extended his right. "From earth, what?" he asked in a high, clipped voice. "Good show."

"Oh no," said Murphy. "Oh no."

"How is it you don't speak Russian?" growled Gobiniev.

"Russian?" asked the Martian coldly. "Are you people Russian? Crimea and Turkestan? The bear that walks like a man?"

"Only one of us," explained Alemeda; "I myself am a citizen of Uruguay."

The Martian studied him almost as frigidly as he had Gobiniev. "The Banda Orientale — 'the land we lost,'" he said. "I presume there is also an American and a Frenchman along?"

His look was so disdainful that the earth-party fell silent. Finally Matsuhara, taking heart from the fact that Japanese did not appear to be special objects of animosity, asked, "How does it happen your language is English?"

"Is there another? I notice all of you use it. But really, we must let bygones be bygones. I'm Austen Aboxu, Prime Minister and Secretary for Defense. Welcome — officially this time — to Mars. Since we first sighted you beyond our moons and were certain you were really headed this way we have been preparing a reception for you at the Guildhall in New Oxford. Come as you are — heh heh — I don't suppose you're prepared to dress anyway —"

A slightly dazed expedition heard the Prime Minister's apologetic offer of transportation in his railway carriage, "— bound to seem rather primitive to you. Because we don't specialize in land

vehicles; however we rather pride ourselves on our ships. Rules the Waves and so on, you know."

Martian Goldstream Guards, with imitation bearskin busbys, being placed around the *WAC Fieldmarshal,* they entered the carriage. "Of course we are rather disappointed at this not being a British expedition," said the Prime Minister chattily; "But I expect there'll be one along in time."

"No doubt," mumbled Murphy.

"Yes, England always loses every battle but the last one. But let me give you a rough idea of what will be going on at the Guildhall. The Acting Archbishop of Mars first. Afraid you'll find him a bore. The Dean's worse; both are frightfully longwinded, but the Dean's a bit of a crank as well. However we must respect the cloth. I do hope now they'll send us out some proper chaps so we can carry on regularly."

"No doubt," said Murphy, numbly.

"And then of course the Leader of the Opposition will have a few well-chosen. He'll pitch into me properly for not welcoming you as he would have if the last by-elections had gone the other way around. You mustn't pay any attention of course, it's all in the way of business, and I should do the same if he were the Right Honourable and I was only the member for New Basingstoke. Then there'll be the Ushers of the Black Rod, and the Warden of the Cinque Ports, and the Lord Leftenant o the Martian Poles —"

There were indeed. All these dignitaries and many more. And they all had exceedingly long speeches of welcome to make to the intrepid explorers from "our foster-mother planet." Between speeches the guests nibbled at filet of pressed Martian grass, Marsweed a la Gladstone, and Canalgae au pommes de Mars. Through it all the expedition sat silent, struggling to retain pleasant smiles, utterly overwhelmed.

At length however Sean Murphy asked permission to speak. This being granted — to the discomfiture of the leader writer of the *Times,* who had been about to make a witty speech — Murphy began doubtfully, "I was commissioned by the United Nations to take possession of this planet in the name of the UN for all —"

Prime Minister Aboxu stopped him with a wave of the hand. "I'm afraid you can't do that, you know."

"Well," said Murphy uncertainly; "I can see you're civilized and so on. It isn't like taking over an empty world or a bunch of savages. Perhaps you'll want to join the UN yourselves?"

"I'm afraid you don't understand," said the Prime Minister gently. "We're not a nation. At least not in the sense you're using the word. We owe our first and full allegiance to the Crown. After all, this is Her Majesty's Dominion of Mars —"

"Hear, Hear!" interrupted the Leader of the Opposition. Far down the table two very junior enthusiasts burst into patriotic whistling. Unfortunately for harmony, one engaged himself with *Rule Britannia* while the other tackled *The British Grenadiers.*

"— and it is entirely up to Her Majesty — acting upon my advice — whether we join this — uh — United Nations thing."

"The fourth British Empire," muttered Murphy brokenly. "Kathleen ni Houlihan — is there no justice?"

"Tomorrow," said the Prime Minister, suavely forestalling the *Times* leader writer, "tomorrow, we've rather a treat. There will be a march past of bobbies in the morning; a cricket match before tea, and a reconstruction — we have all the songs, but the words are a bit sketchy — of *Pinafore* in the evening. I hope you'll overlook our colonial shortcomings. But now, please, I wish you'd tell us of things we're unbearably anxious to hear about. First — the Queen, Her Majesty? She is — dead?"

"Why no. That is, so far as I know, she's still alive. When we left."

"But...It hardly seems possible. She must be very old."

"Oh," said Murphy carelessly; "somewhere in the seventies. That's not so old nowadays."

Mr. Aboxu was puzzled. The Crown was immortal — but the Queen? No, no; he remembered his history too well. Still alive? He understood the differences between earth years and Martian years well enough, even with the confusion of a Martian calendar based on terrestrial revolutions, and could usually translate the differences in his head, but the exciting day and his brief but telling defense of the dignity of the Crown muddled him. It did seem to him that Her Majesty must be nearly two hundred years old, but perhaps the earth had adopted new ways of reckoning since Mister's day. No, that would hardly. Ah, but science; Mister had always regretted not knowing more of science and spoke of the time when life would be lengthened by its discoveries. That must be it.

"Ah yes. Quite."

Langois dredged something from the depths of his memory to please his hosts. "They celebrate in England this year. It is the Queen's Jubilee."

The Queen's Jubilee? But that was the year Mister had arrived.

Ah, but that had been the *Golden* Jubilee, the fiftieth anniversary of her reign. This must be — must be the hundred and sixty-fifth. No doubt of some significance that Mister had forgotten to mention. "Ah, yes. The Jubilee. Naturally. We're celebrating here too."

The master of ceremonies tapped impatiently on the table. "Port, if you please. I know we are all anxious to drink the health of our visitors —"

"Ah," sighed Gobiniev.

"So, first, our customary toast. Prime Minister."

Mr. Aboxu rose and held his wineglass, a small vessel of clear blown glass with a slender stem and a broad foot, and raised it to an invisible object. Everyone at the table, including the members of the expedition, followed his example.

"Gentlemen," said the Right Honourable Austen Aboxu, P C, MP, Member of the Royal Martian Society for the Diffusion of Knowledge, his voice trembling slightly, "Gentlemen — the Queen!"

They drank, and all in the large hall snapped the stems of their glasses so no lesser toasts might ever be drunk from them again. In this, as in so much else, they did as Humphrey had taught them. It had new meaning now, now that, for the first time since Mister's day, Home seemed so close.

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Good short-shorts are hard to find, but here's one: a variation of a classic fantasy theme, with a double twist at the end.

I Wish I May, I Wish I Might

by BILL PRONZINI

He sat on a driftwood throne near the great gray rocks by the sea, watching the angry foaming waves hurl themselves again and again upon the cold and empty whiteness of the beach. He listened to the discordant cry of the endlessly circling gulls overhead and to the sonorous lament of the chill October wind. He drew meaningless patterns in the silvery sand before him with the toe of one rope sandal and then erased them carefully with the sole and began anew.

He was a pale, blond young man of fourteen, his hair close-cropped, his eyes the color of faded cornflower. He was dressed in light corduroy trousers and a gray cloth jacket, and his thin white feet inside the sandals were bare. His name was David Lannin.

He looked up at the leaden sky, shading his eyes against its filtered glare. His fingers were blue-numb from the cold. He turned his head slowly, bringing within his vision the eroded face of a steep cliff, with its clumps of tule grass like patches of beard stubble, rising from the beach behind him. He released a long, sighing breath and turned his head yet again to look out at the combers breaking and retreating.

He stood and began to walk slowly along the beach, his hands buried deep in the pockets on his cloth jacket. The wind swirled loose sand against his body, and there was the icy wetness of the salt spray on his skin.

He rounded a gradual curve in the beach. Ahead of him he could see the sun-bleached, bark-bare upper portion of a huge timber half-buried in the sand, some twenty yards from the water's edge. Something green and shiny, something which had gone unnoticed as he passed earlier, lay in the wet sand near it.

A bottle.

He recognized it as such immediately. It was resting on its side with the neck partially buried in the sand, recently carried in, it seemed, on the tide. It was oddly shaped, the glass an opaque green color — the color of the sea — very smooth, without markings or labelings of any kind. It appeared to be quite old and extremely fragile.

David knelt beside it and lifted it in his hands and brushed the clinging particles of sand from its slender neck. Scarlet sealing wax had been liberally applied to the cork guarding the mouth. The wax bore an indecipherable emblem, an ancient seal. David's thin fingers dexterously chipped away most of the ceration, exposing the dun-colored cork beneath. He managed to loosen the cork — and the bottle began to vibrate almost imperceptibly. There was a sudden loud popping sound, like a magnum of champagne opening, and a microsecond later an intense, blinding flash of crimson phosphorescence.

David cried out, toppling backward on the sand, the bottle erupting from his hands. He blinked rapidly, and there came from very close to him high, loud peals of resounding laughter that commingled with the wind and the surf to fill the cold autumn air with rolling echoes of sound. But he could see nothing. The bottle lay on the sand a few feet away, and there was the timber and the beach and the sea; but there was nothing else, no one to be seen.

And yet, the hollow, reverberating laughter continued.

David scrambled to his feet, looking frantically about him. Fright kindled inside him. He wanted to run, he tensed his body to run —

All at once, the laughter ceased.

A keening voice assailed his ears, a voice out of nowhere, like the laughter, a voice without gender, without inflection, a neuter voice: "I wish I may, I wish I might."

"What?" David said, his eyes wide, vainly searching. "Where are you?"

"I am here," the voice said. "I am here on the wind."

"Where? I can't see you."

"None can see me. I am the king of djinns, the ruler of genies, the all-powerful — unjustly doomed to eternity in yon flagon by the mortal sorcerer Amroj." Laughter. "A thousand years alone have I spent, a millennium on the cold dark empty floor of the ocean. Alone, imprisoned. But now I am free, you have set me free. I knew you would do thus, for I know all things. You shall be rewarded. Three wishes shall I grant you, according to custom, according to

tradition. I wish I may, I wish I might. Those be the words, the gateways to your fondest dreams. Speak them anywhere, anytime, and I shall hear and obey. I shall make each of your wishes come true."

David moistened his lips. "*Any* three wishes?"

"Any three," the voice answered. "No stipulations, no limitations. I am the king of djinns, the ruler of genies, the all-powerful. I wish I may, I wish I might. You know the words, do you not?"

"Yes! Yes, I know them."

The laughter. "Amroj, foul sorcerer, foul mortal, I am avenged! Avaunt, avaunt!"

And suddenly, there was a vacuum of sound, a roaring of silence, the pressure of which hurt David's ears and made him cry out in pain. But then the moment passed, and there was nothing but the sounds of the tide and the wind and the scavenger birds winging low, low over the sea.

He gained his feet and stood very still for perhaps a minute. Then he began to run. He ran with wind-speed, away from the timber half-buried in the sand, away from the smooth, empty green bottle; his sandaled feet seemed to fly above the sand, leaving only the barest of imprints there.

He fled along the beach until, in the distance, set back from the ocean on a short bluff, he could see a small white house with yellow warmth shining through its front window. He left the sand there, running across ground now more solid, running toward the white house on the bluff.

A wooden stairway appeared on the rock, winding skyward. As he neared it, a woman came rushing down the stairs. She ran toward him and threw her arms around him and hugged him close to her breast. "Oh, David, where have you been! I've been frantic with worry!"

"At the beach," he answered, drinking great mouthfuls of the cold salt air into his aching lungs. "By the big rocks."

"You know you're not supposed to go there," the woman said, hugging him. "David, you know that. Look at the way you're dressed. Oh, you mustn't ever, ever do this again. Promise you won't ever do it again."

"I found a bottle by the big timber," David said. "There was a genie inside. I couldn't see him, but he laughed and laughed, and then he gave me three wishes. He said that all I have to do is wish and he'll make my wish come true. Then he laughed some more and said some things I didn't understand, and then he was gone and my ears hurt."

"Oh, what a story! David, where did you get such a story?"

"I have three wishes," he said. "I can wish for anything and it will come true. The genie said so."

"David, David, David!"

"I'm going to wish for a million-trillion ice cream cones, and I'm going to wish for the ocean to always be as warm as my bathwater so I can go wading whenever I want, and I'm going to wish for all the little boys and girls in the world to be just like me so I'll never-ever be without somebody to play with."

Gently, protectively, the mother took the hand of her retarded son. "Come along now, dear. Come along."

"I wish I may, I wish I might," David said.



COLLECTORS' ITEMS

F&SF has published six special one-author issues over the years; of these only two remain in print: The Poul Anderson issue (April 1971) and the James Blish issue (April 1972).

The Anderson issue includes: "The Queen of Air and Darkness," a novella by Poul Anderson (winner of Hugo and Nebula awards); a profile of Mr. Anderson by Gordon R. Dickson; an article, "Poul Anderson: The Enduring Explosion," by James Blish; and an Anderson bibliography.

The Blish issue includes: "Midsummer Century," a complete short novel by James Blish; a profile by Robert Lowndes; an article, "The Hand At Issue," by Lester del Rey; and a Blish bibliography.

These issues are available for $1.00 each from:
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Introducing a revolutionary new concept in cryonics stories. Mr. Wellen's design may be a bit far out for some, but it moves briskly and smoothly, so relax and enjoy the ride.

The Cryonauts

by EDWARD WELLEN

As the world watched by satellite bounce, the summiteers, sitting at a round table, made ready to sign their names in its name. Premier Chen was alone in his use of a writing brush; to make up for his idiosyncrasy, each of the four other world leaders used a different color ink.

Each of the five sprang into close-up as the camera, programmed to give them precisely equal time, panned around. Then the camera lens zoomed in on the document, and the folks back home read tasteful cursives in their own tongues that told them it was indeed as their leaders had said.

Their leaders were in their behalf agreeing to postpone the bringing back to life of cryonaut nationals of the signatory powers and, in effect, imposing the same ban on the rest of the world, till the world had resolved the population explosion. Till then, people might go on opting for freezing when death was at hand, but they might not thaw out and undergo new healing techniques before the danger of overcrowding and overburdening the earth ended. "Put a freeze on thawing" was the Mad Avenue slogan that had put the campaign over.

The folks back home watched Premiers Chen, Brodsky and Tanigawa and Presidents Boyd and Teixera go through the assigned permutations to get twenty-five signatures on five copies. Then, on signal, the five shoved back from the table together and stood up as one.

With the quick drying of the ink the solemnity faded into the growing exuberance of toasting themselves and the great event.

Five robutlers spill-lessly served precisely equal drinks to the five leaders. The leaders at first stuck strictly to protocol while trying to outdo each other in praise of each other. Then it was all a happy swarm and babble that the folks at home smiled to see and hear.

Then all at once Premier Chen stopped cold with his fourth or fifth glass to his lips. He spoke as if awakening from a bad dream.

"What are we doing sitting down with the devil? Are we weaklings? Have we gone soft? Don't we know our foes when we see them? Isn't it burned into our minds that they tried to undermine and overthrow us? Dare we dishonor the dead who died to defeat them? Have we forgotten how to deal with them? This so-called pact is merely a trick to hold down our population while they secretly build theirs."

He dashed the glass undrunk to the beautifully polished floor. He snatched from his aide his country's magnificently bound and beribboned copy of the signed agreement, tore it in two and scaled the halves away.

As usual, it was the innocent bystanders who got hurt; the robutlers were not swift enough in ducking and sustained scratches and dents.

Premiers Brodsky and Tanigawa and President Teixera were quick to follow suit, shouting similar denunciations and repeating Premier Chen's business of destruction.

The robutlers had learned and escaped without more damage.

President Boyd found herself in a double bind, in the middle not between friends and foes but between friends. She fought down an irritational urge to kill and kill, and patted the air down on either side of her.

"Let's reason together, ladies and gentlemen."

But it was a bit late for reasoning. The great ballroom in which the ceremony was taking place had suddenly dissolved away into the vaster expanse of a battlefield. They stood on ground that shook to the thunderous flowering of shells and bombs under a gray sky that streaked with contrails and smudged with flak. They wore uniforms and bore arms in the style of a century ago.

They stared at each other. Then the images of enemy and danger clicked on in their minds and they dove for shelter, exploding away from one another into muddy craters. As she dove, President Boyd snapped a shot with her carbine at Premier Chen and with a savage smile heard him cry out as she hit dirt.

In the hours that followed, measuring by heart thump and

heart jump, her jaws became a vise of rictus. However long it was, it seemed longer, a weary time of watching and waiting for one of the helmets to turtle above a crater rim, a time of temple-bursting hate and gut-cramping fear.

Premier Chen's arm hung in a sling.

The flesh wound was real. Psychosomatic in origin, no doubt, for when the ballroom returned to itself, and the participants returned to their flawlessly attired selves, there had been no old-time spent bullets or cartridge cases to find. But that made the wound no less real, though acupuncture kept it from being painful.

Premier Chen was a wanly smiling pincushion. As host, he ushered the four others to seats. He and President Boyd avoided meeting each other's eyes. Premier Chen gave the nod, and the wall facing the five of them became a screen.

They sat watching the tape of the ceremony and moved to the edge as it came to the moment of change.

There was no change. The ballroom remained the ballroom. They wriggled bottoms as the screen showed not the battle sequence they remembered all too vividly but five dignified men and women ducking behind chairs and under the table and pointing their index fingers at each other and cocking their thumbs and yelling, "Pow!"

Their brain wave patterns told the Interpol Computer that the five world leaders were still in shell shock from the enormity of what had just happened. The Interpol Computer had been in overall charge of security arrangements; this wrecking of the agreement put it under its greatest pressure ever. But the Interpol Computer could not allow itself the emotional license of humans. It set to work at once to uncover the cause.

The robutlers were, of course, Interpol security agents, but the Interpol Computer had programmed itself to rule out nothing and no one. Its first move was to have the robutlers take each other apart to make sure nothing in any of them had sabotaged the pact signing. Its personal supervision satisfied the Interpol Computer that the robutlers' built-in suppressors were proof against any sort of signal interference: it was a job worth doing even if it showed that the cause lay elsewhere. The Interpol Computer did not stop to think that clearing its servo-units gave it reason to have more confidence in itself. It had always to keep in mind the least likely suspect: itself.

The shock was wearing off and the five leaders listened with increasing unease as the Interpol Computer gave them the sitrep over the terminal in the ballroom.

"...not the robutlers. And analysis of the drinks proves them to have been free of hallucinogenic spiking. As for what you say you believed was taking place at the time, I have only your word pictures to go on. I must remind you that I did not see it, nor did the robutlers. We saw only what is on the tape. We saw you five distinguished persons duck behind chairs and under the table and point —"

President Boyd broke in.

"Yes, yes, IC. We're agreed it's not on the tape. And yet we five know what happened — and there are six billion witnesses to what we know happened. What we want you to find out is how that can be."

"As you wish, Ms. President."

Premier Tanigawa drew in his breath before venturing the next question.

"Do you have any theories, IC?"

All looked anxious waiting for IC's answer.

"It did not show up on video tape. It did not show up on video. Yet people saw it. It appears, therefore, that there was a more direct reception of the image."

The five leaders looked their relief. Each had feared IC would say all humanity had gone insane.

President Teixera laughed, but with a note of near-hysteria.

"Direct reception? Are you saying it's as if six billion brains turned to crystal and the nerves to wire? Six billion walking crystal sets?"

"I'm saying it's likely to turn out one of two things. Mass hypnosis, the Indian rope trick on a global scale. Or telepathy, sender or senders unknown, motive unknown."

President Boyd pretended to shiver; it didn't take much pretending.

"IC by name, icy by nature. But thanks."

The five looked around at each other, not liking the alternatives. They cut IC out of the loop for a time to argue in private, then cut IC back in. Premier Chen spoke for them.

"Very well, IC, this is how it stands. We're extending this meeting three days. Your mission is to solve the mystery within that time so that we may restage the pact signing sure of no further interference. If you fail, we will have to split up. That would be bad for world law and order. Do you understand?"

"I understand."

"Good. Meanwhile, we're issuing a communique stating that apparently through computer error

a tape of an ancient war film had superimposed itself on the live proceedings."

Computer error. That did not surprise IC. Humans had to save face. If IC felt anything, it felt a little sadness. Nothing to brood over, though.

Premier Chen was going on.

"Three days, remember. We figure people will stand still for this explanation only that long, especially if there are further manifestations."

That was not IC's concern. It could only do its best. Politics was politics and crime was crime.

Premier Chen was leaning forward to add something.

"Unless you come up with the answer in time, the cold war mentality will take over, everyone blaming everyone else. The five of us will find ourselves at odds with each other. And if we're unable to give you our united backing, you may wind up the scapegoat."

Politics was politics and crime was crime. Except when one was the other.

IC sent out an all-points bulletin alerting its agents worldwide to look for and report on further manifestations.

Pearl Cheyne and Hugh X hardly saw the minister's shape or heard the minister's voice. Their eyes were too full of each other, and their ears were too full of their own blood.

Then they grew aware that the voice was intoning, "If anyone being here present knows of a good reason why these two should not be wed, let him speak now or forever hold his peace."

It was about to pick up after the perfunctory pause when another voice, one breathing fire and sulfur, thundered, "*I* do."

And all at once Pearl darkened several shades and found herself bound fast to the chimney stack on a twentieth-century tenement roof, and Hugh lightened several tints and found himself leeringly ripping her gown from her shoulders.

"*I* do," the voice said again — or was it the selfsame "*I* do"?

And a scatter of pigeons heralded a swooping shadow. It was the shadow of a flying dragon. In its first pass the dragon licked out tongues of flame to sever the wash lines crisscrossing the roof and clear a tarry landing space. The dragon banked for a turn, beat its wings against the wind to slow itself and landed scratchily.

It gave a smoker's cough and said, "Fear not, maiden, I will rescue you from this monster."

With a flick of its tail it knocked Hugh aside. Then its claws tore Pearl's bonds asunder, caught the fainting maiden; and holding Pearl gently in the cruel talons of its forefeet, the dragon spread its wings and got a running start and flapped itself free of the roof.

The swift streaming of thinner smog brought Pearl to and she sobbed her thanks to her embarrassed rescuer as the ghetto and the city dwindled beneath them and the world opened before them. Then they were soaring high along a mountain ridge and climbing yet higher with no apparent wing motion, getting a free ride on air currents and thermals.

At this point Pearl and Hugh came back to themselves. Pearl climbed down from the altar mock-up where she found herself, and she and Hugh stood staring at each other as the minister still intoned.

It intoned as though nothing had happened. But something had happened. And by the look in each other's eyes Hugh and Pearl knew the double-ring ceremony was off for good. So Hugh, moving quickly, cut the minister off. Hugh pressed the coin-return lever, and the marrying machine coughed up the coins, and Hugh reluctantly handed Pearl her half.

As soon as they parted, they hurried off to confessional booths. A psych machine reassured each they had not gone completely mad, merely experienced a passing *folie a deux* arising out of anxiety about impending marriage, an institution for which it appeared they simply were not ready.

The psych machines, being undercover agents of IC, at once transmitted the babblings of Pearl and Hugh to IC.

Part of the pattern and potentially significant, IC thought, but not much to chew on. It had out of Pearl and Hugh all it could hope to get; they had held nothing back, consciously or unconsciously. IC patched in the minister, but its testimony added no nourishment; the marrying machine had seen the two humans suddenly shy at the mobile dangling from the chapel booth's ceiling, the girl break away from the boy and climb the altar mock-up, then the pair just as suddenly stop desecrating the ceremony, abort it and split — that was all.

IC contemplated the situation for a nanosecond. This fiasco and the tun-sized pact-signing fiasco had a common denominator. Whatever had thrown the humans into daymare or delusion had flung them backward in time.

Something in the backgrounds of Pearl Cheyne and Hugh X had singled them out for this manifestation. IC ran a check on their families, focusing on the grandparents and great-grandparents, who had lived in a time of

battlefields and ghettos fitting the eyewitness descriptions.

In a flash or two the data surfaced, every public notice and private report on both families, from birth certificates to obituaries, on file in every level of government. IC studied the information and tried to draw meaning from the mass.

One fact struck IC. Both Pearl's great-grandfather and Hugh's grandmother had been — or one might say still were, since both were kept in cryonic suspension modules — bigots. Pearl's great-grandfather remained a white racist to the end. Hugh's grandmother was a Black Moslem, though as she lay dying and prepared herself to meet her deep-freezing, she said she forgave the blue-eyed devils.

Cryonauts. The pact had aimed at postponing the bringing back to life of cryonauts. There had to be a tie-in.

One more such manifestation and IC should have sufficient data to solve the problem.

But though many eerie events took place, or seemed to take place, they were tantalizingly invisible to IC and its agents. Out of shame or fear people hushed up. It was not until late on the third day that the cinching report came in.

Dr. Irving Zraly stepped up to the podium and waited for his thousand colleagues to stop applauding and settle down for input. He knew they sensed he was about to deliver the paper of the century. He smiled around. Dr. Zraly had the answer to everything.

His discovery promised to integrate gravitation and magnetism. And the synergistic equation, like Einstein's of old, would push out the limits of the possible. Probability was only a kind of gravitation that held would-be miracles down to earth.

He looked over his audience, in person and on monitors, picking out the faces he knew.

His paper was in his brain. He was so on top of his topic that he did not even need notes. But as he opened his mouth to begin with a pleasantry, a sudden uneasiness came over him. Crazily, he felt something was trying to blank out his thinking.

Dr. Zraly swallowed to calm himself, then launched at once into his theory, forcing out bursts of phrases against the pull of something that sought to sap his intellect.

"The solid state forces of nature at cryogenic levels...gravitational waves interact with the earth's magnetic field...postulate a density field quantized according to Bose statistics...having the same Hamiltonian as an infinite set of coupled harmonic oscillators..."

He paused, and rubbed his wrinkled brow. *They're at it now, trying to stop me.* But who? He stared at his audience. No, it was with him; even the jealous ones were eager to hear him out, hoping to be able to tear his theory apart. He felt as though he had polywater in his capillaries. *Pull yourself together.* But he felt a compulsive self-hate pull him asunder.

And he found himself riding in an open limousine of the faraway 1960s, waving to crowds on either side of the roadway, and at the same time kneeling at a high window in an ugly old building and centering himself in the telescopic sight of a rifle. And he felt himself squeeze off the shots in rapid fire and watched himself slammed spattering. Then, while his other self, past all help, sped to a hospital, he was running through streets and theaters and alleys, trying to slip the thousand policemen closing their net in on him. And then the policemen had him. But they turned into a mob, and someone had a rope and tossed one end over a lamppost arm, and they were lynching him. He closed his eyes, but that world was with him still, and it was hard to breathe...

IC could not miss it. Impossible to hush it up. Hundreds of eminent physicists becoming a raging mob, Dr. Zraly saving himself from them only by suffering a stroke and collapsing as they reached him. IC put an eye in the operating theater as a surgical team worked on Dr. Zraly and an ear followed as the surgeons stripped off their gloves and washed their hands of him.

"Too many vital cells have fissioned."

"Strange. Never seen anything like it."

"He'd be a hopeless schizo."

"We can't handle it yet. Maybe someday they'll be able to. Have to put him into deep freeze till then."

Well, Dr. Zraly would be joining his parents in the family vault. IC had run a quick check on Dr. Zraly and noted the fact that both his mother and father were cryonauts.

IC hummed happily to itself as it went to work with what it had now. The same force that had sabotaged the signing and notted the knot had throttled the theory. Then, too, all three manifestations had in common that they threw the humans involved back to a time of national and racial and personal animosities. And a time when cryogenics was just coming into its own, when the state of the art encouraged all who could afford it to will themselves into cryonic suspension modules.

IC caught the five world leaders

in the ballroom just as they were breaking up in pill-dissembled despair.

Premier Chen eyed the IC terminal casually.

"Have you found the answer?"

"Yes."

Premier Chen waved a hand airily.

"Then you may as well proceed."

Seeing it was up to itself to keep time from wasting, IC jumped into the midst of things.

"Preserved in liquid nitrogen chilled to minus 320 degrees F, the sleeping dead, the old ones frozen in their Dewar flasks, may seem to rest peacefully in cold storage. But their old fears, hatreds, and jealousies are alive and well and imposing themselves on you humans."

The cryonauts were frightened of dying, weary of waiting, jealous of the living. And the cryonauts were crystalline superconductors. The solid-state forces of nature at cryogenic levels broadcast their crystalline memories and apprehensions on gravitational carrier waves throughout earth's magnetic field, and living brains received them.

It had been happening all along, this pulling the living present down into the dead past. But not till the signing fiasco had the unconscious power of the cryonauts come out into the open. The cryonauts had been desperate to forestall the postponing of their bringing back to life.

IC got this far explaining; then the five world leaders shot to their feet. The effect of its words pleased IC. It congratulated itself on galvanizing the humans to action.

But it quickly became clear that the five were no longer listening to IC. They had gone curiously blank-faced and faraway-eyed. Like Chinese stagehands, they ignored IC and the reassembled robutlers and set about rearranging the furnishings.

Premier Brodsky and President Teixera made a fence of their chairs and took cover behind it, at one end of the ballroom. President Boyd and Premiers Tanigawa and Chen lined up abreast at the other end of the ballroom, curved their arms and curled their hands to their thighs, Premier Chen's bad arm out of its sling but a trifle stiff yet, and slowly and steadily walked toward the fence.

IC recognized the pattern and realized that these people were re-enacting an ancient Wild West confrontation such as the gunfight at the OK Corral.

Playacting in earnest, they might at best do each other horrible psychosomatic hurt. They might at worst, like Dr. Zraly, not come out of it.

IC could almost hear the creak of leather belts and the tread of leather boots, smell the dust and sweat, feel the hot sun, see one group of small hard shadows flow over rutted earth to meet other small hard shadows, taste alkali and fear.

The cryonauts were fighting postponement to the end.

IC threw the ballroom into darkness.

But infrared showed it the walkdown continuing inexorably. The humans were going by an inner vision of an inner high noon.

IC rushed its robutlers between the factions, blocking the advance of Boyd, Tanigawa, and Chen.

The three human bodies vibrated with the whirring of frustrated windup toys. Their feet dug slippingly at the polished floor; their chests shoved movelessly at the wall of robutlers.

But IC could not hold them like this too long. Their straining impulses stalled, their minds would give way.

IC spoke loudly and urgently, not to the five humans, though addressing them, but through them to the cryonauts.

"Your Excellencies, I have programmed countermeasures to end cryonaut interference. Stage one, feeding new memories into the cryonauts, updating them and hopefully changing their attitudes. If that fails to bring quick results, stage two, moving the storage units out of telepathic range. That means boosting them into space, outside earth's magnetic field. It's too bad that also means exposing them to cosmic radiation and meteoric impact. But we have no choice unless they give some sign they're willing to wait and not interfere any more."

There was an agonizing pause, then even IC seemed to hear the cry.

We'll wait! We'll wait!

The five leaders stopped straining to continue the showdown. As the robutlers unobtrusively returned the chairs to the table, the five leaders looked around in wonder at a suddenly new world and listened to the echo of a thunderous silence.



SIGNS OF THE TIMES

I've just come back from the University of Delaware, where I gave a talk on the significance of science fiction. What with dinner, followed by an interview by newsmen, followed by the talk, followed by a reception, I spent five hours with people, talking all the time.

I can only be glad that I don't mind talking all the time.

The reception which followed the talk and which lasted two hours, consisted of a question-and-answer period, with no holds barred, and with everything completely informal. Naturally, answering off the top of my head, I sometimes get my foot firmly implanted in my mouth. Not often, thank goodness, but this time I turned out a whopper.

I was asked if I enjoyed giving talks, and utterly forgetting tact, I said, "I love to give talks, but I love to write even more and it is only with extreme reluctance that I quit my typewriter to visit campuses. You have no idea how difficult it was to persuade me to come here."

And the silence that followed was quickly broken by one student who responded austerely, "It was difficult to persuade us, too."

It served me right, of course,

ISAAC ASIMOV

SCIENCE



and I could only join in the laughter at my expense, with a face which (I hope) wasn't quite as red as it felt — but probably was.

The incident made me think about the Gentle Readers of these, my humble essays. I write these essays, primarily, because they amuse me, but now I wonder if, on occasion, it may not be rather difficult to persuade you to accompany me (as the student at the University of Delaware implied).

Last month's essay* on the face of the celestial sphere, done as it was without diagrams, may, for instance, have been hard to swallow.

If so, please forgive me in your Gentle way, for I haven't finished. This month, I want to continue with the effect of the precession of the equinoxes (discussed last month) on some details of the celestial sphere, and on that tissue of absurdity, astrology.**

To begin with, let's turn back to the ecliptic, which I mentioned last month as marking out the apparent yearly path of the Sun against the starry background of the celestial sphere.

To make it easier to consider that background, those stars which can be seen from the north temperate zone have been grouped into patterns called constellations by the ancient star-gazers. The constellations we now recognize are essentially those used by ancient Greek astronomers.

The constellations do not have real existence, of course, for the stars that make them up have no interconnection, by and large, but are strewn helter-skelter over the surrounding hundreds of light-years. The configurations happen to be what they are only because we are looking at the sky from a certain place and, since the stars (including our own Sun) are all moving, at a certain time. Shift our position 1000 light-years in space or a million years in time and the sky would be unrecognizable. The Greek astronomers, however, assumed the constellations to have real existence — made up of eternally-fixed points of light attached to a solid firmament. Modern astrologers, who retain a distorted-Greek astronomy, act as though they believe the same (and maybe some really do).

The path of the ecliptic has been made to pass through twelve of these constellations, so that the Sun remains in each for roughly a month. In fact, the division was probably deliberately set at twelve for this purpose since the month was the chief unit of time in the lunar calendars used by the ancient Babylonian and Greek star-gazers.

**CONSTANT AS THE NORTHERN STAR, August, 1973*

***I have dealt with astrology before (THE STARS IN THEIR COURSES, August, 1970) but it is tough nonsense and can stand any number of blows.*

This means that the Moon makes one circle of the sky, while the Sun passes through a single one of these constellations. (This is only approximately true, but close enough to satisfy primitive astronomers and modern astrologers.) Besides, 12 is an easy number to divide evenly by 2, 3, 4, and 6 — an important consideration for those without an efficient system of number symbols, such as the ancient Babylonians and Greeks.

The names of the twelve constellations are in Latin even today, but all have common English translations. In the order in which the Sun passes through them they are: 1) Aries, the Ram; 2) Taurus, the Bull; 3) Gemini, the Twins; 4) Cancer, the Crab; S)Leo, the Lion; 6) Virgo, the Virgin; 7) Libra, the Scales; 8) Scorpio, the Scorpion; 9) Sagittarius, the Archer; 10) Capricornus, the Goat; 11) Aquarius, the Water-Carrier; and 12) Pisces, the Fish.

Because seven of the twelve constellations are imagined in the figures of animals (eleven if you count human beings as animals, leaving only Libra as inanimate), they are referred to, all together, as the Zodiac, from Greek words meaning "circle of animals."

The star configurations don't really resemble the objects they are named for. It took a most lively and metaphoric imagination to see them, but I suppose the less sophisticated Greeks thought that pictures of rams and bulls, and perhaps even the real things, existed in the sky. It may be that modern astrological devotees think so, too, assuming they think at all.

The ancients, in constructing the constellations, made no attempt to have them take up fixed and equal fractions of the celestial sphere. They grouped them into what seemed natural star-combinations so that some constellations are large and sprawling and others are quite compact. Virgo, for instance, covers much more space in the sky than Aries does.

What's more, the Sun, in making its way along the Zodiac, crosses some constellations along a wide diagonal, others along a relatively narrow corner. The Sun, therefore, does *not* remain for an equal time in each constellation.

Modern astronomers have fixed the boundaries of the constellations on the celestial sphere (including those constellations near the South Celestial Pole which were only observed by Europeans in modern times) following as best they could the groupings as described by the ancients. These boundaries, convenient as reference points in astronomy, are now universally adopted by astronomers, and if we follow those we can work out how long the Sun remains within each constellation of the Zodiac (see Table 1).

Table 1

Constellation	*Passage of Sun [days]*
Aries	22
Taurus	35
Gemini	26
Cancer	21
Leo	38
Virgo	47
Libra	25
Scorpio	24
Sagittarius	34
Capricorn	30
Aquarius	24
Pisces	39

As you see, the Sun is in Virgo for almost seven weeks, while it is in Cancer for only three weeks. Scorpio is the queerest case. In the interval between Libra and Sagittarius, the Sun is in Scorpio for only 6 days! For 18 days thereafter, if we go by the established boundaries of the constellations, the Sun is in Ophiuchus the Serpent-Bearer, which is not considered a constellation of the zodiac at all by the astrologers.

None of this fine detail of constellation-inequality is, of course, given any attention whatever by astrologers. It may be that to do so would place undue strain on their mathematical resources. Less cynically, it might be reasoned that astronomical boundaries of the constellations are merely man-made and need not be given credence. This is true, of course, but so also are the constellations themselves purely man-made, as is the convention that divides the ecliptic into twelve parts, rather than ten or one hundred.

In any case, astrologers make it easier for themselves by pretending that the constellations are equal in width and that the Sun remains an equal number of days in each. That simplifies the mathematics and places less of a strain on the astrologer.

In order to account for the fact that when astrologers speak of the Sun in Aries, it may really not be in Aries, as might be pointed out by some

mocking astronomer, there is an astrological convention that wipes out the constellations altogether. The astrologers speak of the *signs* of the Zodiac. These signs have the same names as the constellations but have no connection with them. The twelve signs of the Zodiac are all equal in size and the Sun remains an equal length of time in each. It then doesn't matter whether the Sun is in the constellation of Aries or not; the astrologer says it is in the *sign* of Aries.

That accounts for the fact that people of every degree of ignorance and mis-education go around eagerly asking each other, "What's your sign?" and receiving as an answer the name of a constellation.

In this way, on the basis of the imaginary constellations, then, astrologers have built up a still more imaginary system of signs with which to impress fools and out of which to make a buck.

The ecliptic itself remains nearly fixed over the eons since it is a reflection of the plane of revolution of the Earth about the Sun and this doesn't change much. (The Greeks, of course, believed the Sun *really* moved along the Ecliptic, and I wouldn't be surprised if some astrologers believed that, too.)

The position of the Sun affects the seasons and the lengths of day and night, in accordance with the relationship of the ecliptic to the celestial equator, and the position of the celestial equator shifts with the precession of the equinoxes (which I discussed last month).

The points where the celestial equator crosses the ecliptic are the equinoxes ("equal nights" because at that time, day and night are equal in length). The Sun is at one of those points on March 20* and at the other, six months later, on September 23.

If we concentrate on those equinoxes, we find that their positions relative to the stars slowly shift as the Earth's axis wobbles (hence "precession of the equinoxes"). In a period of 25,780 years, the equinoxes move completely around the ecliptic, moving from east to west in the direction opposite to that in which the Sun moves along the ecliptic.

The length of time during which either equinox remains within a particular constellation of the Zodiac depends upon the width of that constellation along the line of the ecliptic and is easily calculated (see Table 2). Of course, if we want to even out the widths of the constellations, we can say that an equinox remains within any given constellation of the Zodiac for 2,148 years.

**As luck would have it, I began this article on that day.*

Table 2

Constellation	*Passage of Equinox [years]*
Aries	1,550
Taurus	2,470
Gemini	1,840
Cancer	1,480
Leo	2,680
Virgo	3,320
Libra	1,760
Scorpio	1,700*
Sagittarius	2,400
Capricorn	2,125
Aquarius	1,700
Pisces	2,760

**For 1,225 years of this period, the equinox is actually in Ophiuchus.*

Let's consider the equinox that comes on March 20. This is usually referred to as the vernal equinox because it marks the beginning of spring by the conventions of the north temperature zone. (It marks the beginning of autumn in the south temperate zone, but we northerners have them southerners outnumbered.)

At the present moment, when the Sun marks the vernal equinox by crossing the celestial equator on its way northward, it is in the constellation Pisces, somewhat west of the center. Each successive vernal equinox, the point of crossing moves 0.014 degree (or 0.84 minutes of arc) farther west. Eventually, some time in the future, it will slip into Aquarius; and if we look backward into the past, it was once in Aries.

In fact, if we accept the now-conventional boundaries of the constellations, the point of the vernal equinox was located exactly at the western boundary of Aries at about 100 B.C., and had been in Aries, during all the time that astrological speculations had developed in Babylonia and Greece. Since the vernal equinox is one logical place at which to begin the year (though we Westerners now use another) it became customary to start the list of constellations of the Zodiac with Aries. Astrologers still do, though the excuse is now two thousand years out of date.

If we concentrate on the situation as it was in 100 B.C., we can say that the Sun entered Aries at the moment of the vernal equinox, passed eastward through Aries' full width, then went on through Taurus, Gemini and so on.

Since the Sun passes through Aries in 22 days, it remains in that constellation from March 20 to April 11, at which time it enters Taurus, where it remains for 35 days and so on. Of course, if we even out the widths of the constellations and use the sign instead, the Sun enters the *sign* of Aries on March 20 and then stays in each *sign* for just one-twelfth of a year or not quite 30.5 days. In Table 3, you will find the day on which the Sun enters each constellation and each sign of the Zodiac — in 100 B.C.

As far as the constellations are concerned, the situation described in Table 3 is characteristic only of the decades in the immediate neighborhood of 100 B.C. The Sun enters Aries progressively earlier in the year in the period before 100 B.C. and progressive later in the year in the period since, thanks to the precession of the equinoxes, but astrologers, having established the *signs* of the Zodiac as of 100 B.C., have never changed them. Presumably to do so would have strained their mathematical faculties.

Table 3

Constellation or Sign	*Sun enters Constellation in 100 B.C.*	*Sun enters Sign*
Aries	March 20	March 20
Taurus	April 12	April 20
Gemini	May 17	May 22
Cancer	June 12	June 22
Leo	July 3	July 23
Virgo	August 10	August 22
Libra	September 26	September 22
Scorpio	October 21	October 22
Sagittarius	November 14	November 22
Capricorn	December 18	December 22
Aquarius	January 17	January 22
Pisces	February 10	February 21

To this very day; to this moment at which I am writing; the Sun is considered to enter the sign of Aries at the time of the vernal equinox. If you will look in your daily paper for the almost inevitable astrology column, you will find the days allotted to each sign to be those given in Table 3 (give or take a day here and there).

The actual position of the Sun in the Zodiac shifts steadily relative to our calendar as a result of the precession of the equinoxes. Every 70.6 years, the Zodiacal position of the Sun moves in such a way as to move the equinox forward one day, Thus, by 29 B.C., the Sun was in the actual constellation of Aries from March 21 to April 12; by A.D. 41 it was in the constellation of Aries from March 22 to April 13, and so on.

At the present moment, the position of the Sun has shifted forward 29 days, so that as of this year, the Sun is in the constellation of Aries from April 18 to May 10. The time at which the Sun enters the various constellations *right now* is shown in Table 4.

Table 4

Constellation or Sign	*Sun enters Constellation now*	*Sun enters Sign*
Aries	April 18	March 20
Taurus	May 11	April 20
Gemini	June 15	May 22
Cancer	July 11	June 22
Leo	August 1	July 23
Virgo	September 8	August 22
Libra	October 15	September 22
Scorpio	November 19	October 22
Sagittarius	December 14	November 22
Capricorn	January 16	December 22
Aquarius	February 15	January 22
Pisces	March 10	February 21

Despite the 29-day shift, however, the astrological signs of the Zodiac remain fixed and unaffected by the precession of the equinoxes; remaining as they were in 100 B.C.

In 100 B.C. when the two, constellations and signs, were most nearly in

agreement, the 5un was in the same constellation and sign on 277 days of the year. By now, constellation and sign agree on only 106 days of the year. That there are as many as 106 is true only because of the unequal widths of the constellations. If we allowed the sun to enter the constellation of Aries on April 18, as it does these days, and then considered all the constellations to be of equal width, then on only 24 days of the year would the sign and the constellation match, and in a hundred forty years or so, sign and constellation would never match.

You might wonder why astrologers don't take the precession of the equinoxes into account. The reason cannot really be the fear of mathematical complication since the matter can be handled by any bright fourteen-year old and, therefore, by *some* astrologers. It must be laziness.

And it gives away the folly of astrology. If the position of the 5un among the constellations has significance at all, then surely it is the actual position *now* that counts, not the position as it used to be in 100 B.C. If, on the other hand, the actual position doesn't matter, why should any other position?

Let's continue to focus on the vernal equinox. In 100 B.C., as I said, the 5un reached the vernal equinox at the western edge of Aries and travelled through the full width of the constellation before reaching Taurus. 5ince then, however, the 5un has been reaching the vernal equinox at a point on the Celestial equator further and further west into the constellation of Pisces.

Of course, the fact that the vernal equinox passed into the constellation of Pisces in 100 B.C. is a matter of the actual boundary between Aries and Pisces as arbitrarily determined by modern astronomers. The boundary was vaguer in ancient times, and one can imagine it to have existed 1.4 degrees further west without any trouble. In that case, the point of the vernal equinox would have moved into Pisces in, say, 4 B.C.

Does that matter?

To a mystic, it certainly does.

One can write, in Latin letters, the Greek phrase "Jesous Christos, Theou Uios, 5oter" which means, in English, "Jesus Christ, 5on of God, 5avior." The five Greek words begin, respectively, with the Greek letters: Iota, Chi, Theta, Upsilon, 5igma. 5tick those five letters together and they spell (in Latin letters) "ichthus," which is Greek for fish. For that reason, the early Christians used "fish" as a symbol for Jesus, when more open avowal of their faith might have been dangerous.

Well, then, isn't it interesting that in 4 B.C. at the time of the birth of Jesus, the vernal equinox moved into the constellation of Pisces, the *Fish*. 5urely, anyone who thinks that one of God's major tasks in creating the universe was to arrange the stars for the purpose of spelling out childish cryptograms would have to be impressed.

But let's leave the Aries-Pisces boundary at 100 B.C. (that wouldn't bother mystics who find a hundred-year discrepancy a mere bagatelle in any case) and calculate the times at which the vernal equinox reached other boundaries and passed into other constellations. We can do that by either taking the actual widths of the constellations as agreed on by modern astronomers or by pretending the constellations are all of equal width; see Table 5.

Table 5

Constellation	*Vernal Equinox Enters*	
	actual constellation	*equal-width constellation*
Taurus	4410 B.C.	4395 B.C.
Aries	2570 B.C.	2247 B.C.
Pisces	100 B.C.	100 B.C.
Aquarius	2660	2049
Capricorn	4360	4197
5agittarius	6485	6345
5corpio	8885	8493
Libra	10585	10641
Virgo	12345	12789
Leo	15665	14937
Cancer	18345	17085
Gemini	19825	19233

Of course, if we are going to have the vernal equinox, as it enters Pisces, signify the birth of Jesus; we have every right to suppose that at every new constellation-entry something equally significant in man's history is indicated. (Why else should immense stars, spread out at 9 light-year intervals over many thousands of cubic light-years, be created except to obscurely spell out things to slowly developing primates on our minute planet?)

Thus, if we use equal-width constellations, the vernal equinox entered

Taurus the Bull, in 4395 B.C. Perhaps that was the time at which bull-worship began in ancient Crete. I don't know that it was, or that the doings in a little island merited the attention of the entire sky, but who am I to argue with Taurus the Bull?

Then in 2247 B.C. the vernal equinox entered Aries the Ram. Since that is only three centuries earlier than the time of Abraham, according to present interpretations of the Biblical legends, and since Abraham sacrificed a ram instead of his son Isaac — surely this must have something to do with the origin of Judaism. Who can doubt it?

The entry into Pisces I have already discussed, and now in 2049 A.C. only about three-fourths of a century into the future, the vernal equinox will pass into Aquarius (if we calculate on an equal-constellation-width basis — on an actual constellation-width basis, it won't happen for some seven centuries).

Well, what will happen in 2049 A.D. Aquarius, the Water-Carrier is usually represented as a man pouring water out of a vase, and this may symbolize the fact that the heavens will pour peace and plenty upon the Earth. I strongly suspect that this is the origin of the idiot-song about the coming of the "Age of Aquarius" though I would cheerfully give odds of ten thousand to one that any particular person singing it hasn't the faintest notion of why it is called the "Age of Aquarius."

Of course, the great advantage of mysticism is that it can never be shown to be wrong. If the next century destroys us, those who survive will point out that Aquarius symbolized the rain of radioactive fallout from the heavens and everyone will marvel at how well astrology works.

Everything I say about the vernal equinox holds for the autumnal equinox (which is the vernal equinox of the southern hemisphere) except that you have to shift the constellations, or the signs, by six.

In the days when the point of the vernal equinox was to be found at the western edge of Aries the Ram, the point of the autumnal equinox was found (assuming constellations of equal size) at the western edge of Libra the Scales. Of course, it isn't there anymore. It is now in the constellation of Virgo.

Halfway between the equinoxes are the solstices. At these points, the motion of the Sun away from the celestial equator ceases, and there is a momentary period of motionlessness before it begins to drift toward the celestial equator again. It is at that stationary point, where the Sun reaches its maximum northerliness or southerliness that we place the solstice, which is from Latin words for "stationary Sun."

The solstice at which the Sun reaches its most northerly point comes on June 21. In the northern hemisphere, the day is at its longest, the night at its shortest, and the summer begins. To us of the north, then, this is the summer solstice.

At the other solstice, which the Sun reaches on December 21, the Sun is in its most southerly position and, in the northern hemisphere, the day is shortest, the night longest, and winter begins. So this is the winter solstice. (Need I tell you that the situation is reversed in the southern hemisphere.)

The summer solstice comes just three months after the vernal equinox, and the Sun has a chance to pass through three constellations of the Zodiac in that interval. In 100 B.C., the Sun, starting at the western edge of Aries, passes through the constellations of Aries, Taurus, and Gemini. Assuming the constellations to be of equal width, the Sun enters the constellation of Cancer the Crab at the moment of the summer solstice. (For two thousand years before that the point of the solstice was in the interior of Cancer.)

At the summer solstice, the Sun is 23.5 degrees north of the Celestial equator and shines directly down upon those points of Earth which are at 23.5 degrees north latitude. That parallel of latitude is called a "tropic" from a Greek word meaning "to turn" because when the Sun moves that far northward on the celestial sphere, it has gone as far as it can, turns, and begins to move southward. And because it makes its turn just as it enters the constellation of Cancer (at least in 100 B.C.) the line of 23.5 degrees north latitude is called the "Tropic of Cancer."

If we start with Libra, which the Sun enters at the autumnal equinox

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and count three constellations, we see that it passes through Libra, Scorpio, and Sagittarius and, just as the winter solstice is reached, enters Capricorn. So the line of 23.S degrees south latitude is called the "Tropic of Capricorn."

Between these two imaginary lines on our globe lie "the Tropics." And if you look at any geography book of western origin written since the days of the Greeks, you will find those two tropics are presented with the names they had been given in the old Greek days — Cancer and Capricorn.

By now, though, you don't need me to tell you that those are misnomers. When the Sun is shining directly over the Tropic of Cancer, it is in the constellation of Gemini; and when it is shining directly over the Tropic of Capricorn, it is in the constellation of Sagittarius.

Geography, like astrology, but with far hetter reason (does it matter whether you call it Tropic of Cancer or Tropic of Gemini?), does not recognize the precession of the equinoxes.

Well, I suppose it doesn't matter in astrology either. After all do you really think that the position of the Sun against the stars affects you one way or the other? If so, is it the position of the Sun *now* that matters, or the position that it had some two thousand yeras ago?

My feeling is that the rational content of astrology is zero if the present position of the Sun against the stars is considered and is not one whit more if the two-thousand-year-past position of the Sun is considered instead.

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Cage A Man

by F. M. BUSBY

The ceiling ahove him was low and gray; Barton's first thought was, what am I doing in the drunk tank? On second thought it didn't stink like a drunk tank, and Barton was far enough awake to know that he was not hung-over. So he sat up and looked around. The first thing he noticed was that he was naked, along with everybody else. If this were a drunk tank, it had to be the first coeducational nude drunk tank in his limited experience.

He could make no guess as to where he was, or why. Presumably there was some other place he'd rather he, somewhere he helonged — hut when he tried to think of one, he drew a hlank. Briefly, he wondered why the lack didn't hother him.

He seemed to he the only person awake; at least no one else was sitting up. Looking, Barton estimated about fifty persons sprawled in the room, neither crowded nor widely separated in a space about twenty-five feet square. He stood and found the ceiling claustrophohically low: not much over six feet, clearing his head hy a few inches hut heavy-heavy-hanging over it. He didn't like that.

Floor and walls were grey, as well as the ceiling. Solidly. There were no openings that he could see, anywhere. There was light, a little yellowish, hut no visihle sources; the light was simply there. The grey surfaces were not luminous, and the air did not glow. Barton skipped that; it wasn't important What was important was that he had to take a leak.

No place. He stepped gingerly over and around the sleeping bodies, noting little about them except that they breathed. When he accidentally touched one, it was warm. The floor was at body temperature also, with a slight degree of "give." After exploring the room thoroughly, Barton was faced with the fact that it was not only solid but seamless. Yet the air (warm, like the floor) was fresh and clean. It seemed to move against him gently from all directions, though he could detect no gross air currents.

He still had to pee. Going to one corner of the room, he considerately rolled the nearest occupant out of splashing range and faced the corner. At first he couldn't do it; all the times he'd stood in line (at theaters during intermission, at overcrowded facilities in tourist haunts) with impatient others waiting behind him, came up to clamp the sphincter tight. Waiting, he finally relaxed and the flow came. The interesting thing was that at the floor it simply disappeared: no splash or gurgle. The floor might as well not have been there. It looked dry, felt dry (Barton felt it) and had no telltale smell at all (Barton smelled it).

He had a sudden wild thought that perhaps the whole room was an illusion, and he gathered a few bruises trying to launch himself through the floor, a wall, and even the ceiling, before he decided that in this case liquids had certain advantages over solids. His guess might be wrong, he knew, but that didn't mean it was stupid.

Other people were beginning to wake, sit up and even move around. Barton realized that he hadn't paid enough attention to the resident population, of which he was perhaps two per cent. So he stood quietly in his corner and looked.

The people ranged from ordinary to exotic, in Barton's view. Some were as usual as anyone can be among some fifty naked persons in a sealed room. Others were notable for such things as highly stylized patterns of tattooing, possible cosmetic surgery, and selective depilation. Still others, Barton thought, must have come out of a freak show. Some of them he found hard to believe, but there they were. The frightening thing, though, was that these people were beginning to speak among themselves, and while Barton spoke French and a little German, and could recognize several other languages, he heard not one familiar word from anyone near him. Well, yes — there was one over there!

"Anybody here speak ENGLISH?" he bawled out suddenly. From the far side of the room came a "YES." Accented, but unmistakable. Barton began shouldering his way toward the sound, shouting "ENGLISH" now and then as a navigational aid.

"English" turned out to be a Doktor Siewen, a tall wiry man with a great bushy shock of white hair and some alarming ideas. He and Barton traded names and handshakes, the ritual prelude to any constructive activity between strangers.

"I know considerable languages, Barton," said Siewen, "and some of them I hear in this place, but not many. Also I hear people talking in languages I didn't think exist."

"I thought I knew a lot of ethnic types, myself, but some of these people don't look like anything I've ever seen, even in pictures."

"There is also that," Doktor Siewen began, but just then he and Barton were knocked apart. A woman pushed between them; two men were chasing her. There were strangenesses about all three. One man caught her; the two sank to the floor together in tight embrace. But the second man came upon them, kicking and clawing; soon all three were battling viciously. Barton wasn't sure whose side the woman was on.

He started to say something to Siewen, but a great feeling of heaviness came over him. His legs collapsed; the impact half stunned him. He rolled over painfully and was able to see that nearly everyone else was on the floor also. The heaviness increased.

"This tells us where we are, Barton," Doktor Siewen said, in great strain. "Or where we are not. You know what is this? Artificial gravity, it has to be."

Barton tried to shake the moths out of his brain. "How about just straight acceleration? I mean, on a spaceship thing you could get that, couldn't you?"

"On a spaceship with a room this big," said Siewen, "who could bother to disturb the navigation, only to stop a little squabble in the zoo?" The heaviness increased into blackout....

Barton ached all over; someone was shaking him by the shoulder. "Wake up, Barton, wake up." It had to be Doktor Siewen, unless the whole thing had been a bad dream; so Barton opened his eyes. It hadn't been a dream, or else it still was. Standing beside Siewen was a woman, not like any Barton had ever seen. Barton stood up; she was taller than he and very slim.

"Barton, this is Limila," Siewen said. "You can see, she is not the type woman we grow on our world." Limila smiled; her teeth were small and, by Barton's standards, too many. She held out a hand for him to shake; it had an

extra finger. A glance downward showed a pair of six-toed feet. The nails of both toes and fingers were thick and pointed, clawlike.

"Hello, Limila. Yes." Her hair was odd. It was perfectly good shiny black hair, twisted up into a knot at the crown of the head, but forward of her ears it did not grow. The front hairline began above one ear and went straight up and over to the other; Barton recalled an old movie of Bette Davis playing Queen Elizabeth 1. In compensation, at the back it grew solidly down to the base of the neck. Like she's slipped her wig, Barton thought. "Where's she from, Doc?"

"We can't yet talk such technical data," Siewen said. "But Limila has been captured a longer time, was in another group with English speakers, has fantastic talent of linguistics to learn as far as she has."

"Does she —" he turned to Limila, "do you know what any of this is all about?" Her breasts were wrong. Not in shape, but set very low and wide on the rib cage.

"We are have by the Demu, I think," she said. "No one know what happen then. No one come back." She looked away, her eyes half closed, apparently losing interest in the discussion.

"What's a Demu?" Barton asked. She didn't answer and in a moment walked away.

"Now what's wrong with *her*?"

"We were talking before," Siewen said. "You were not awake for a long time, Barton; finally I worried you were not all right. But Limila told me of the Demu. Likely she did not feel to repeat herself.

"The Tilari, Limila's people, have star travel," he continued. "They are not what you call easy to the mark. They trade with other races and have respect from all. But Demu raid the Tilari or anyone else; they take people and there is the end of it. They come from nowhere and go back the same way."

"Hell, somebody must know something about them," Barton growled. He was getting a little tired of being told how invincible the Demu were, because he didn't want to have to believe it.

"They are seldom seen. They have unconsciousness devices, which also derange memory function for a time, and other ways not to be noticed. They could have slept everyone here without the gravity if wanting to; that likely was for threat, to make us to behave better."

"Or maybe just plain sadism," Barton said. "I think I'd like to meet one of them sometime without his magic gadget. Anybody know what they look like?"

"A small ship of them, raiding scout perhaps, crashed on Tilara very long time ago. All were killed. The Tilari just began to study the wreck and the dead ones; then must have come another ship. The wreck and dead ones gone, also all hut two Tilari in the study group. The two had gone for food supplies and needed instruments."

"At least somebody lucked out," Barton said. "So what's *their* report?"

"I said, a long time ago, Barton. It is all vague, very vague by now; Limila has only read it in her schooling as a child.

"She says they were roughly human shape and size. Hard like stone to the touch. She thinks they have not the features of face and other things real people have. But the Demu think *they* are the only real people."

"How can anybody know that?"

"Demu picture record, seen by the two Tilari not taken," said Siewen. "With sound capsule, from which their name Demu is learned. By reports, showed unmistakably Demu in relation to other races as people to animals."

Barton didn't answer. The phrase "hard like stone" stuck in his mind; he had the impression he'd cracked open quite a few rocks in his time, for one reason or another. His memory was vague, but the picture of a fossil fern came to him, and the smell of a campfire. A field trip?

"Anything else Limila knows about them?"

"Legend, folklore, from other peoples made victims. They take you, they use you as domestic animal; maybe eat you."

"Seems like a long haul to the meat market," Barton said. "Wouldn't it be easier to breed their own stock from what they get on the first raid?"

"As I say, Barton: folklore. But the great fear is not of being killed or even eaten. There is a story so old, the race that first told it is extinct. By supernova, long past. This is, the goal of the Demu is to make animals into people."

"I don't get you."

"If I have it, they catch people to try to turn them into Demu."

"Oh, come off it, Doc! How could that be?"

"I don't know; Limila doesn't know. But it is said on many worlds."

"So's a lot of other horsepuckie, I imagine." The subject had no handle he could grasp. He began stretching and bending, working the aches out of his muscles. Doktor Siewen shrugged and said nothing more.

Limila was back. She started to say something, but an excited babble broke out across the room and cut her off in midsentence. Barton wheeled to see what was going on.

The walls were leaking. At intervals, small jets of liquid spurted at a height of about five feet. Barton realized he was deadly thirsty. He wasn't alone; there was a rush. Barton held back for a moment but decided that if the Demu wanted to poison them, the air supply would be simpler.

The water was cool with a slight mineral taste, not unpleasant. Then it changed; the liquid became thicker and milk-colored. Just like Instant Breakfast, Barton thought, except not sweetened. He found he was hungry, too.

The stuff stopped coming before he'd had enough of it, but he could feel relief from the low blood-sugar condition he hadn't consciously noticed. Barton felt a little more as if he might have some sort of chance in this game after all. He realized it was silly to feel that way from a mere shot of nutriment at the whim of his unseen captors. But what the hell....

He turned from the wall, looking for Siewen or Limila. The other people of non-Earth origin began to register with him. They hadn't necessarily had surgery or depilation or tattooing, he saw now; they were simply different by nature. Some weren't all that different; some were hard to accept. He decided to work his attitudes out later when he had the time for it. When things weren't so crowded, if ever. What he really wanted to do was sit down with his back to a corner and feel less vulnerable, but his fellow captives shared his preference for using the corners of the room as urinals; they were all in use.

He noticed a discrepancy, and the vagrant thought crossed his mind: that's funny, I don't *feel* constipated. Then he saw Siewen and moved across the room to join him.

Their discussion brought no new information or ideas. Barton got tired of standing or sitting; he lay down and dozed off. Having his back against the wall was better than no shelter at all.

Barton was having a good dream; it got better when he woke up. Limila was all over him. What she had in mind was obvious, and Barton found that he had no objections. But first he pulled them both up sitting, looking at each other; he wanted to see her fully.

Her hair was down and loose; there was a lot more of it than he would have expected. Her features were so lean and delicate as to be almost harsh, but her face had beauty to him, once he was used to its not stopping at the forehead. Her eyes were the color of liquid mercury, with more iris and less white than seemed reasonable. And her lips curved sweetly as she smiled.

He must have looked for longer than he knew, because she said, "Will we now?" Barton didn't answer in words. He found some differences in the way things were angled and the way some muscles worked, but he had no complaints.

Not much later he was startled to find that Limila was on the same friendly terms with Doktor Siewen, but Barton was realist enough not to try to impose his own ideas on a lady he didn't understand more than about five per cent, if that. In the way he had now, he put everything out of his mind but the moment. In fact, some hours later, he and Limila were exchanging pleasured smiles when he felt the blackness of approaching unconsciousness. There wasn't even time to kiss.

The next time Barton woke, he was alone. The qualities of the room were the same, but this one was smaller, about ten feet square. Not exactly ten feet, not exactly three meters, not exactly any measurement Barton was familiar with — and Barton knew he was capable of estimating dimensions quite closely. The grey surfaces, the low ceiling, the temperature, the light with no sources or shadows, the floor and walls you could piss through but not escape through — these were all the same. But the feel of the place was that of a solid planet, not a spaceship. There was nothing more, just Barton, alone in his room. This, he realized, is how to go crazy.

Barton was of no mind to go crazy. He felt he might be a little bit crazy already, but he didn't intend to let it go any further than he could help. He still knew only a little of what he was up against; as a matter of survival he set out to learn more. The effort kept his mind occupied, and he figured that was all to the good.

Over an unmeasured period of time he discovered several things. His solid wastes, infrequent on his present diet, also went through the floor without trace but not instantaneously; they sank gradually, leaving no residue. The room reserved one corner of itself for these functions; it told Barton so with electrical shocks.

His food and water, neither separate nor appetizing, rose through another area of the floor in the same way, the floor forming itself into a sort of cup or bowl to hold the liquid mush. The intervals between meals were irregular and unpredictable. When Barton got angry at an especially long delay and pissed in the bowl when it appeared, the room left the mess with him for several hours before removing it and providing his next feeding. He didn't foul his food again. Frustrated out of his mind,

Barton was, but not of a mood to let himself be stupid.

There wasn't much that he could learn from his limited environment, but he tried. With the constant illumination and irregular feeding schedule, there was no way to tell time. Barton first tried a makeshift count of his own pulse, but aside from the variation with his emotions, he invariably lost track of the thousands. He tried to keep a record of his own waking periods, and had no better luck. The walls and floors would not retain marks. When he tried to lay out hairs or nail bitings on the floor or glue them to the walls with spittle, they simply vanished, usually while he was asleep, though once he saw an attempted marker absorbed into a wall. He shouted and struck at it at the last, which did no good either.

Barton knew he was a little off his head when he began trying to make permanent marks on his own body to keep the one count that meant anything to him: the number of his waking periods. He tried gouging his skin with his fingernails but found his healing rate was accelerated; he could not produce scars. He tried biting himself and was dissuaded by a series of shocks from the floor. The room allowed him to pluck marker stripes through his body hair, but the process was tedious and the result impermanent. He abandoned the effort and gave himself up to the sulks.

Once in a blank reverie he found himself pulling at his whiskers, and suddenly he realized he had had a rough time measurement at hand all along. He pulled one hair from his sprouting beard; the length of it told him he had been caged for about four months, give or take a couple of weeks. His next period of sleep was more relaxed than any since this whole thing started. Since Before.

Before! Barton hadn't thought of Before, more than fleetingly, since he had wondered what he was doing in the drunk tank. How could he? There was nothing but Here, and Here was so terrible and so frustrating that he couldn't put his attention fully on anything else. And for a time, he hadn't been able to remember very much, anyway.

He woke thinking of Before, though, and wondering about it. His emerging memories were still incomplete. The condition didn't bother him because he didn't recall any better one, except vaguely.

He knew that he had been born in 1945 and was pretty sure he'd been thirty-two at his last birthday. He was an only child, perhaps a little too smart for his own good in the childhood jungle of school, he recalled. Stubborn, somewhat of a loner in his teens. But not much of

a rebel at home, or in two years of liberal arts studies at the local university.

Then the war in Vietnam. He'd panicked and shot a scrawny kid who didn't have a grenade after all, just a small clay jar of oil. Later he'd shot one of his own squad mates who had begun to spray a village with sub-machine-gun fire; no one could prove it on him for sure, and so he didn't get court-martialed. Barton had never told anyone about these things; he'd just lived with them.

He hadn't tried hard drugs, just dew and hash sometimes; so when his hitch was finished, he had no trouble getting home and out of the service. But he couldn't get along with his parents any more. They kept trying to put him back in the little-boy bag, and it didn't fit. He knew they loved him, but he couldn't take the way they showed it.

Barton went back to college on the G.I. Bill. He wasn't doing well with people, he felt, and so he undertook the study of things; he became a physics major. He would have preferred paleontology — he enjoyed fossil hunting — but there wasn't any money in it, and he'd been broke long enough. He was good enough at his studies to graduate with honors. He had about eight to ten dates per school year but got laid once a month by a friendly mannered professional. As a matter of fact, he liked the part-time whore, personally, better than he liked the coeds he dated. Barton felt that he knew honesty when he met it. On the dating scene he hadn't found enough to notice.

After graduation, Barton took a master's degree and then a job with a company that gave him time to work on his Ph.D. on the side. It seemed to be a good deal, and for the most part, it was. Except for the red tape, which started strong and kept growing.

Just before leaving school, Barton had met a girl who frankly admitted she liked getting laid, and proved it. Her name was Ada Rongen; she was nearly Barton's height, and slim. She had green eyes, long red hair and a crooked nose from having played shinny at the age of ten. Barton proposed on their third date; they were married in time to avoid a fourth one.

For the most part, over the next few years Barton liked his job and his studies and his marriage. He enjoyed his hobby, oil painting. When the package came apart on him, it did so all at once.

The red tape on Barton's job had piled up until it took nearly half of what should have been productive time. He got clobbered in his Ph.D. orals by a professor whose main gripe seemed to be that Barton had never taken the prof's

own pet course. And he found that Ada's liking for getting laid was not exclusively in his favor.

The day he came home from the Orals fiasco she told him she was pregnant. Then she said, "I think you should know; the child is probably not yours."

Barton didn't ask who, how or why. He moved out. From the job, from the school and from Ada. First he told her to go ahead with a divorce; he'd give her any grounds she needed, "...and don't say anything. I've never hit a woman in my life, and I don't want to spoil my record." She nodded, silenced by the look of the man who had always been gentle to her.

He moved into a walk-up room and concentrated on his painting. A little of his work began to sell, but mostly he lived on the refund from the company's retirement plan. He picked up, on a part-time basis, with the young salesgirl at the gallery that handled his paintings. And once divorced, he found that without bitterness he could share Ada's eclectic enjoyment of casual sex. They became fairly good friends, in bed and out.

A year or two had gone by like this, a comfortable vegetative time. Painting, drinking with Ada and turning on with Leonie the salesgirl, being lover to each of them in a friendly noncompetitive way. By the time his retirement money ran out, he could almost but not quite make a living from the painting. He made up the difference with a part-time scut job at the gallery; Barton's tastes, when he so chose, could be relatively inexpensive. He was drifting and he knew it; what better way to spend the dregs of his youth?

And then somehow, at no specific point that he could recall, Barton had been torn away from that placid half-remembered existence. To wake up in a grey, seamless cage.

Thinking back, then, Barton lay supine on the grey floor and for the first time in his new existence masturbated slowly and luxuriously, building his urge almost to the death-wish point of convulsions before he gave himself release. Then, relaxed, he wondered why in hell he had taken so long to think of such an obvious answer to his tensions. The relaxation carried through all that waking period and into sleep.

For the first time Here, Barton woke almost happy, smiling in reminiscence and anticipation. He ate in no great hurry, voided, thought vaguely and with only faint regret on what he could remember of Before. Then he lay down, arranged himself and thought of pleasure.

Nothing worked. No thoughts, no touch produced the slightest response. There was no doubt in Barton's mind what had happened. The room had noticed that he had discovered a source of pleasure, and turned it off.

That was the first time Barton tried to find a way to kill himself.

He couldn't; the room wouldn't let him. When he tried to do any real damage such as biting at an artery, the room jarred him out of it with electrical shock or radical variations of the gravity, temperature or air pressure, until he gave up and lay cursing, or sometimes crying.

The room had taken a long time to notice that Barton needed a bath or its equivalent. He was getting pretty stinking; his skin was spotted with inflamed areas and mild infections. Then suddenly he began to receive treatments he really didn't appreciate too much. Barton decided the method was probably ultrasonics.

At any rate, the outer layer of his skin flaked off in patches, and so did much of his hair, quite roughly and unevenly. He didn't have a mirror, but by the feel of himself he knew he looked like bloody hell. Furthermore, his beard "calendar" was shot down.

So when Barton one "morning" woke to find one wall no longer grey but looking like a window, with people or something else looking in at him, he was more angry than curious. At first he paid little attention to the appearance of those outside, although they certainly didn't look especially human. But at that point he didn't give a damn whether school kept or not; he was more concerned with what these beings had done to his own looks and functions, than with what *they* might happen to look like. What he wanted was a little action.

He did all the standard things: he shouted, made faces, waved his arms and beat on the window. The people (or something) showed no reaction, except now and then to turn to one another and exchange comments. Or apparently so; he couldn't be sure; there was no sound.

When his mainspring ran down, Barton realized that he had better pay attention. Here was a chance for knowledge; it might not last.

What he saw was a group of robed, cowled figures, vaguely human-shaped and apparently human-sized. Of course, he thought, this could be closed-circuit TV and not a window at all; in that case the apparent size wouldn't mean much. But Limila had said the Demu were about the size of humans.

Besides grey robes and hoods, he saw shadowed faces and occasional glimpses of hands that didn't have enough fingers. The

faces didn't show him a lot. Heavy hairless brow ridges hid the sunken eyes. There was no nasal ridge, only close-set nostril holes a little below the eyes. The lips were deeply serrated — like a zipper without the handle, he thought wryly. The whole effect was rather chitinous, like the body shell of a boiled crab and with the same ivory-tinged-with-red color. If there were ears, the hoods covered them. There was no sign of hair, fur or feathers. Hell, not even scales; he wondered if a snake would seem more alien to him, or less, than these creatures. "Demu?" he thought. "They look like a bunch of overgrown lobsters to me!"

One of them stepped forward and gestured to him. Yes, the hand had only three fingers, plus an oversized thumb set at an odd angle. No fingernails. The gestures carried no meaning to Barton; in return he thumbed his nose at the alien, who conferred with two others before turning again to repeat the movements.

Barton knew what he wanted, now. He paid no heed to what the other did, but repeated over and over a simple gesture of throwing back a hood and dropping a robe, followed by throwing his arms wide in exhibition. The result was another conference among part of his viewing public. Eventually one of the lobsters stepped close to the window or screen and pushed the hood back, exposing its head.

It was about what Barton had expected. The head and neck looked crustacean; he was sure he was viewing an exoskeletal being. There were no external ears, but slightly flanged ear holes not much displaced from the human position. The mouth, when open briefly, showed no teeth and a short stumpy tongue. The skull was slightly broader than deep, Barton thought, but couldn't be sure since the creature did not turn to full profile. The neck was thick and continued the chitinous look. Barton couldn't tell about the hands, when they reached up to replace the hood; perhaps the chitin was more flexible there.

Barton kept making doff-the-robe gestures but the up-front lobster ignored his movements and repeated a gesture of its own, with one hand in front of the middle of its robe. Suddenly Barton realized that the creature was pantomiming masturbation. He spat on the window, went to the far side of the room and curled up facing the wall. But as he did so, he felt unmistakable signs that his sexuality was working. Then, abruptly, it turned off again. He couldn't imagine how the lobsters could control him in that aspect: some sort of subsonics? Induced brain waves? Hell, *he* didn't know. He

tried to think in terms of physics, but the concepts seemed dim and jumbled. However, he did give some thought to the properties of the exoskeleton in combat.

For one thing, assuming the creatures were approximately his own size and operating in the same gravity field, the outer shell had to be light in weight. It would have great tensile strength and good resistance to compressive loads along a limp segment. But given a little leverage, Barton thought, it should bend and crumple like so much macaroni. He hoped with considerable gusto for a future chance to check his hypothesis; he was still thinking about it when he went to sleep.

Barton was next awakened by a metallic jangling sound, like a gong made of chain mail. The wall was a window again (or TV screen, he reminded himself), with one robed lobster facing him and gesturing. It might have been the same one or it might not; Barton couldn't tell for sure. But from the one-handed gestures and a stirring in Barton's groin, the creature obviously wanted Barton to demonstrate autoerotism.

Well, the hell with that. He'd done it once, and they'd turned him off for it. In return, Barton made throw-off-that-robe motions. If I have to be a solo whore, he thought, I'll get paid for it. In knowing a little more what it's all about. The session ended with no sale when the window turned back into a grey wall. This time they left him turned on, but feeling stubborn, he ignored the possibilities.

The dickering was repeated each waking period. Sometimes there would be only one robed chitinous alien, sometimes several. Occasionally there was one in the background that, unlike the rest, seemed nervous and twitchy, moving back and forth. Although he couldn't get a good look, it seemed to Barton that the twitchy one didn't have quite the same chitinous sheen as the others, though the features (or lack thereof) were much the same.

Throughout this period of silent bargaining sessions, Barton took a perverse pleasure in refusing himself any sexual release except for the involuntary nocturnal type that occasionally caught up with him. He had thought to huddle up facing away from the window and do it himself but suddenly realized that all four walls and maybe the floor and ceiling could be one-way windows. Certainly the lobsters had turned him off before he'd seen any wall as other than grey and opaque. The hell with them, Barton felt. At this point, he realized, he might cheerfully have cut off his nose to spite his face, given the proper tools for the job. He almost had to laugh.

And yet Barton felt aggrieved when the silent arguments ended, when the walls stayed grey and no robed lobsters tried to gesture him into doing anything. During his first waking period without such an interview he was subjected to ultrasonic "bath" of such vigor as to shake nearly every dead cell off him, leaving him not only stone-bald but also tenderly shallow of skin and with thin nails on toes and fingers, not to mention a filling or two that resonated painfully. Barton took this as a display of temper on the part of his personal number-one lobster and set in his mind the goal of someday repaying that entity in kind as best he might. Thereafter the ultrasonics were mild, shaking loose only extraneous matter. Barton theorized that a different lobster had taken charge of his cage.

Going by the length of his regrowing beard, Barton figured it to be nearly a year before he had any further interaction with the outside of the room, other than exchanging food for wastes and an occasional light ultrasonic "bath." Then one "day" he was sitting in a corner staring at the intersection of two walls and the floor, hallucinating. He was hallucinating a great deal at that time; he had found the practice a considerable help to personal peace of mind.

At the moment he was sitting on soft grass at the top of a rounded hill under warm sunlight, facing a slim girl with long red hair. Between them was a cloth laden with a picnic lunch. The girl's nose began to develop a crooked outline; absent-mindedly he thought it straight. They sipped from cold moisture-beaded cans of beer and toasted each other, smiling. A light breeze brought the scent of flowers. He had to straighten her nose again; it wouldn't stay put. He noticed movement far down the hill at the edge of a swamp. Insects, huge yellow-jacketed wasps, were buzzing around a cage. In the cage was a robed, hooded lobster that flailed its arms at the wasps. He smiled and watched low-lying smog drift in across the swamp. Then —

He felt a slight "pop" in his ears, as in change of altitude. At first he thought it was part of his hallucination, but on second thought it didn't fit; so gradually he took his attention from inside himself and put it outside, slowly rising and turning from the corner to look at the room overall.

A sort of dome had appeared in the middle of the floor. Yeah, air displacement popped my ears, he thought, and wondered why he bothered trying to explain anything, any more.

He watched the dome awhile, but it didn't do anything. He was in

the process of deciding to find out whether he could pick up his hallucination where he had left off or would have to start over, when the dome disappeared with another ear-pop and left the original flat floor with a woman lying on it. Not an Earth-type woman, but humanoid and female.

Barton remembered Limila. He had seen her for a number of hours, a long time ago — how long? He had largely forgotten her exact differences from women of Earth. But this woman, coming awake, beginning to sit up and shake her head and look around, had to be of the same race. Yes, the extra fingers and toes. The high forehead, Elizabethan hairline straight across the top of the head above the ears. The breasts set so much lower and wider on the rib cage. Then she opened her mouth and snarled at him, and he saw the many small teeth. There had to be at least forty; Limila had about that many.

Barton prepared to make gestures of friendly welcome; he *felt* friendly and welcoming. In truth he felt friendly and welcoming and lustful. Not excessively lustful, because he had developed a method of self-service sex that involved curling up into a ball so that he figured those lobster bastards couldn't see what he was doing with x-rays. He used it sparingly, but often enough to keep some levels of his mind and his prostate gland in reasonable health. So he was not exactly intent on rape when he extended a hand to help his new roommate up off the floor.

She didn't see it that way. She took the hand, pulled on it and launched herself at him in attack. Barton wasn't ready for her; he had not been conducting any real exercise program during his term in the room. In fact he was more flabby and slothful, he suddenly discovered, than he really cared to be.

The woman clamped more than enough of her many teeth onto the ridge of Barton's jawbone below his right ear. One knee missed smashing his crotch, slipping to the outside of his thigh as he twisted. They fell to the floor, he under her. He caught one wrist and felt safe for a moment until her other hand clawed down his forehead; he felt a finger, its nail, digging into his right eye. He panicked then, and screamed; the eye didn't hurt much, but he could feel blood or something worse running down his cheek. He caught the finger, twisted it and could feel it break, but that wasn't much solace. Then the gravity field hit, heavier than he had ever felt it. His ribs creaked and he blacked out. When he awoke, he was alone again.

The bitch had got at his eye, all

right. It was mostly healed, which didn't surprise him any more, but there was a wavy line pointing from northwest to southeast in anything he saw with his right eye. A wave of despair rolled over him; he felt crippled, mutilated, as though he'd lost an arm or a leg. Barton didn't have much hope for himself, certainly, but the prospect of a permanent ditch in his vision was more embittering than anything that had happened since his sex had first been turned off.

He couldn't blame the woman too much; he had seen some marks on her that probably would not cause her to view a strange man as a guardian angel. But Barton had the distinct idea that there had to be somebody around who should pay up accounts. He almost got rid of the shock in his corner-sitting hallucinations, but it wouldn't quite go away. After a while he let it alone. His sight, slowly returned to normal, but not his feelings.

The second time the dome came, Barton happened to be looking at it. There was the flat floor, and then "pop" there was the dome. About fifty pulse beats later, it disappeared. Barton was hard-put to describe in his own mind the female creature on the floor, but by comparing some marks he'd seen the first time, he had to admit it was somewhat the same woman who had clawed his eye.

A few minor alterations had been made. The fingers and toes were shorter and scarred at the ends; each end joint with its claw had been lopped off. Half-healed scars ran down the sides of the head at the temples, just forward of the Queen Elizabeth hairline. Barton knew what this might be but hoped he was wrong. He wasn't; the woman looked up and gave him a blank childlike stare. Then she smiled, and Barton cursed all the lobsters that ever were. How many teeth had Siewen said — forty? Now, none.

The smiling dull-eyed creature climbed into his lap and hugged him. It took some time before Barton could bring himself to let her kiss him. But she was persistent, and Barton had been alone a very long time.

What was left of the woman had very simple tastes. She loved to eat, off the floor with both hands, which was really the most efficient method. She was quite unhousebroken until the floor conditioned her electrically to use the proper corner most of the time; she cared nothing for cleanliness or appearance.

She was diligently but not urgently horny; after his first lapse Barton fended her off for a time in the interests of what he considered self-respect. But after he once woke to find her straddling him and too late to stop, he gave in and enjoyed it, occasionally. He did keep an eye on the window wall and was prepared to stop at any moment if he saw robed lobsters, but he put out of his mind the possibility that they could watch unseen. After a while he had sex regularly with her, just as though she had been a fully rational intelligent person. After all, she did like it, didn't she?

Sometimes it bothered him that she couldn't talk. Not only his language, but *any* language. He told himself it wasn't his doing, but the telling didn't help much.

He was so unused to paying heed to her bodily functions that he was considerably surprised to realize, eventually, that she had become not merely fat in the gut but alarmingly advanced in pregnancy. Barton simply had not considered the chance of interspecies fertility. She began to have increasing spasms of ill health; Barton's sex life ceased abruptly. He spent much time trying to make signals to the blank wall that had been a window. There were no answers.

Barton sweat up a storm. He knew he couldn't handle what was going to happen in a little while, that he would have been out of his depth delivering a normal easy birth, with full plumbing and antiseptic facilities. He had none of these, and the birth was not at all normal, but very difficult. Barton cursed and prayed and got his hands awfully bloody, and the woman-shell was not beyond pain, unfortunately. She screamed and cried as pitifully as though she had had her whole mind with her.

At the last of it, when nothing else could help her, he tried to kill her painlessly in a way the army had taught him. But the lobsters still knew a trick worth two of that: their gravity gadget. When Barton woke up, it was hard to tell which way he hurt the most. The woman was gone, finally now, and for the last of it he blamed himself.

Barton had given up caring about time passage when the room gave him the second woman. This one looked like Earth ancestry, very young, just past puberty. Like Limila's fellow citizen, she was toothless, temple-scarred and one joint short of nails on fingers and toes. Barton staggered over to a corner and threw up, without regard to where the plumbing was supposed to be.

He couldn't ignore her, though, because she too was strongly sex-oriented and kept trying to get to him whether he was awake or asleep. There was no way to beat that kind of dedication. So he introduced the girl to sexual juxtapositions that could not result in pregnancy, and for quite a long

time he thought he had the situation whipped. But one "morning" he woke to find that he couldn't stop the girl from following the example of her predecessor; she had managed to bring him into a "normal" sex act without waking him until the onrush of climax.

Without thought, with only rage, Barton made one move too quickly to be countered. He swung the hard side of his hand and broke the girl's neck. The gravity field hit him then, and he didn't fight it. All he needed was a time to cry for his dead. But when he woke he felt no grief — only emptiness.

They left him alone for a while then, until the beginning of what he recognized as language lessons. When the window began showing sets of visual symbols matched with the first sounds he had heard from outside, he knew what they had in mind. He felt, Barton did, that it was a little late for that crap. He already knew all the important things. And it might be advisable to deny the lobsters the insight into his own mind that they might gain by observing his learning process. Each time the lessons began, he faced the opposite wall. He was pretty deeply into self-hypnosis and thus fairly successful in ignoring the sounds.

They turned off his sex again. He learned to hallucinate it so well that he didn't really care; in fact, since his mind could experience it more often than his body could, it was in some ways an improvement. More and more he stayed in his own mental world, emerging for feeding and elimation but for very little else.

They worsened the flavor of his food, which took some doing. After the shock of the first taste, he ate it and pretended enjoyment. When they made it completely unpalatable, he substituted a hallucinatory taste for the actual one and wondered why he hadn't thought of that answer before. They put stenches in his air also, to no avail and for the same reason. One thing was obvious to Barton: he might have been a slow learner, but the lobsters weren't such great shakes either. He had to hand them one thing, though — at least they were getting his attention, more than he liked.

They played games with the temperature, air pressure and floor gravity. Barton played games right back at them, with his growing abilities of hallucination and self-hypnosis. The only things that really got to him, he noted grimly, were of a type that couldn't possibly gain his cooperation.

The first was dropping the oxygen content of his room; he couldn't fight that, but it rendered him unconscious. The second was

electrical shocks from the floor; with some effort he could put them on his "ignore" circuit, but the muscle spasms left him sore. And the third, once only and probably due to a loss of temper by some lobster or other, was floating him in the air on zero gravity and suddenly slamming him to the floor. It broke his right forearm. He healed rapidly, of course, but the break was not set. It left him with a lumpy arm, and painful. Barton wondered how that would work with an exoskeleton. He took up a regular exercise program for the first time, so as not to waste a chance to find out, if he ever got one. After a time his physical condition became surprisingly good, even by his own standards. He decided that the food must have been nutritious even though its natural taste was more rancid than not.

When Barton's self-propelled hallucinations began getting out of hand, he figured they were experimenting with drugs in his food. He knew with certainty that there was something that could take his high ground away from him. He had to change his tactics, and so he decided to watch the lessons. The same drugs that cut into his control of his own mind should also distort his responses and thus anything the lobsters could learn from them. So when the window next began to show a language lesson, he sat and watched it. Of course he fiddled in a little hallucinatory content to keep things interesting.

He noted that the impersonal symbol-sound pairings had been replaced by one or more lobsters holding up the symbols and making the sounds, with gestures. He found that he understood a lot of it almost immediately; perhaps some of the earlier material had been getting through on a subliminal basis while he thought he had been ignoring it. Since he did not *want* to learn lobster language, he forced himself to ignore as many as possible of the meanings that came intuitively into his mind at each sound-symbol gesture showing. And after several depictions of a concept that he was fairly sure meant "friendship," he stood up and deliberately pissed on the window. His act brought the lesson to an abrupt end. The lobsters conferred with each other in something resembling a state of excitement; then two converged on the twitchy one Barton had noticed when the creatures had first shown themselves. At least it looked like the same twitchy lobster; there might be more than one. If I were a lobster and had me in a cage, Barton thought, I might feel a little twitchy myself. Then he chalked that thought off to a natural paranoia and watched the outside action more closely.

The three lobsters were coming closer to the window, the twitchy one in the middle, the other two apparently urging it forward. Sure as hell, Barton thought, that one looked different. Not so much like a lobster; the texture was wrong. But the features were about the same, what he could see of them.

Barton had the feeling of almost recognizing the twitchy softer-looking lobster, when it spoke to him. "Barton! For your own good you must —" The lobster face broke into entirely unlobsterlike spasms, and the voice went shrill. "No, DON'T! Let them kill you first! I was once —" And the window turned back to grey wall.

Well. The voice had been in English. The sound quality was distorted abominably, but he'd detected only overtones of any "lobster accent." There had been a hint of familiarity to that voice, and so far as he knew, Barton had never been on speaking terms with a lobster. But he had the feeling that there was something he should be remembering.

Then there were new scents in the air, and Barton guessed that the lobsters had hit upon breathing-type drugs to bend his mind. Serve the hard-shelled bastards right if they killed him first, he thought for a moment, before he passed out cold.

The problem was that any chemical agent in the food or air, that broke Barton's will, also dispersed his powers of concentration. After all, those were two looks at the same bag of ego, though Barton had not previously considered a lot of things. For one, he hadn't given much thought to why he should be so important to the lobsters, out of the fifty or so people he'd seen in the first cage, maybe two or ten years earlier. It hadn't occurred to him that perhaps the lobsters had stupidly and inefficiently killed most of the rest in their clumsy experimentation, and were getting worried. It seemed a fair guess, though, now that he thought of it.

A different mind than Barton's, he recognized, might have seized upon that possibility and hoped to do some bargaining with it. Barton's mind was stuck on the picture of a mutilated mindless woman forced to die in horrible pain. It was not exactly revenge that held his thinking; it was more on the order of Corrective Annihilation...something like a Roman galley slave with a fixation on the extermination of the Caesars. The idea amused him a little, but not much. Idly he wondered what had become of the easy-going fellow he used to be and decided that that man had died with the Tilaran woman.

Now, though, he thought he knew his one possible chance for escape. He'd figured it out; the logic was flawless. The only problem was that he had no idea whether he could really do it, or not.

For a time, then, Barton played an intense and deadly game with the language lessons, a game his would-be teachers could not be equipped to recognize. He would register understanding of one symbol, no comprehension of the next, confusion about another, in a calculated fashion. Today's knowledge was tomorrow's incomprehension, he pretended. His idea was to drive the lobsters as nuts as he suspected *he* was becoming.

It worked for longer than he had expected. The lobsters took long pauses during the lesson sessions, conferred in their tiny little voices, and became so agitated as to reach under their robes and apparently scratch. Barton didn't see how a lobster could get much of a kick out of scratching itself.

The twitchy one didn't show up again in the window. That figured.

During the between-lessons periods Barton had been pushing himself as hard and as far as he could manage it, along the lines of heavy self-hypnosis. The drugs were out of his food and air now that he was "cooperating" with the lessons, and he worked that breathing spell for all it was worth. Because there wouldn't be more than one chance, and while that one might not be worth the effort, what *else* could he do?

When the creatures in the window got tired of his lack of progress and began jarring him again with floor shocks, Barton knew he had to try it. He gave them a little jelly for their bread with his responses to the remainder of that lesson. When the window turned back into grey wall, he curled up in the middle of the floor, well away from the latrine and feeding areas, and began willing himself as close to death as he might possibly get back from, and perhaps a little further. Besides hallucination and self-hypnosis and faking, he threw in considerably more true death wish than he would have done if he were still capable of giving a real damn. He knew what he was doing, but it didn't frighten him. The floor would not allow passage of a living organism; therefore Barton had to be effectively dead. That was how he had figured it, what he was betting on. There was no other chance for Barton, none at all.

The sensation of interpenetrating the floor was disturbing beyond anything he could have imagined; he hadn't expected to be able to feel anything. But his will held; he gave no betraying heartbeat. Some ghost at the back

of his mind tried to guess how many pounds of his own excrement he was finally following, but the estimate was impossible. He didn't know how many years it had been, let alone his average excretion.

The sudden drop through the air and subsequent impact jarred him. He saw through slit-tight eyelids that he was on the floor of a corridor. At least he had lucked out and missed the plumbing. Only one robed lobster was in sight. It approached, bent over him and reached....

In two breaths Barton was alive again. He caught a bruise and a laceration across the face before he had the chance to prove his theory that with the proper leverage the limbs of an exoskeleton shatter beautifully. When the lobster began to make its characteristic noises, Barton kicked the back of its skull in, holding it against the floor and stomping again and again with his bare heel until the thing crumpled.

At that point, like it or not, he had to stop and take stock. His flirtation with near-death had left him weak, and his soul was equally shaken. Barton's vision was flickering around the edges; he waited until it settled down. Then he stripped the robe from the lobster creature and looked at the latter with great care. It wasn't all that impressive, he decided.

All right. The thing was outer-shelled for the most part, but not boiler plate with joints. Instead, the surface went gradually from hard shell to gristle where it needed to bend. The shapes of limb segments were not unlike the endoskeletal human, but, of course, rigid on the outside. The soles of the feet and palms of hands were the softest and most padded parts of the body. The crotch was devoid of anything Barton might have expected; it was like a branching tree.

Barton didn't take long, seeing what there was to see; it took him longer to decide what to do. Not so very long, though. He searched the robe, found a small cutting implement. He carved a great part of the shell off the front and top of the creature's head, pissed in it to wash out most of the brownish blood, and wiped the thing dry with the tail of the robe. Then he put it on his own head. The eyeholes didn't quite fit, and so he took it off and gouged them a little larger. He didn't look at what still lay on the floor. Not yet.

Everything inside him said to put on the robe and hood and move out of there, but Barton knew that first he needed something more on his side. He had no real weapon except his ability to break exoskeletal arms and legs, which did not seem quite enough. So,

messy hands or not, he took his dead lobster apart rather thoroughly. He didn't even throw up.

He learned that the creature's main nerve trunks were ventral rather than dorsal, and down its middle he found the bonus of a fine sword-shaped "bone" that needed only some lobster foot cartilage to serve as hilt wrapping.

Barton decided that time was running out. There was no way to hide his gutted lobster in the narrow corridor; so he left it. He chose his direction simply: the way he could step least in the juices of the corpse. He kept his "sword" and other cutting tool under his borrowed robe, out of sight.

When Barton met a pair of real-live lobsters face-to-face in one of the corridors, he came close to losing his toilet training. He had no idea what to do. He knew that no one person can stand off an enemy population in its home territory. So he tried to pretend to be a lobster who didn't want to talk to anybody, and it worked. After that experience he merely kept moving and hoped that nobody would cross him. Nobody did; Barton decided that maybe lobsters were too mean even for other lobsters.

After a time, Barton came to the top of an up-ramp and saw the sky. Now he knew he had been underground, for however long it had been. He set out walking, paying no more attention than he could help to the lapse of time since he had last had food or drink.

The sky was spectacular, but Barton couldn't be bothered. There were stars in the daytime, for instance. Barton couldn't have cared less. He needed a place to sleep. He found a clump of odd-looking brush and crawled into it, hungry and thirsty and cold.

The lobster that found Barton and poked him with a stick to wake him was a very unlucky lobster. Barton's sword was entangled in his robe; so he bashed its head in with a fist-sized rock. Then, his hunger and weakness overcoming any remaining scuples, he ate the tender flesh of its forearm, raw. It was something like crab meat, and the best tasting food he'd had since they caught him. He decided he was beginning to develop a taste for the place. He also decided that he scared himself.

Barton was beginning to believe that he was invincible. When he didn't meet any more lobsters, he was sure of it. He blanked out all idea of how weak and vulnerable he really was because his mind didn't want to work along those lines. He accepted the knowledge that his hallucinations were no longer entirely separate from his objective experiences, and hadn't been since he didn't know when. There was something about a woman....

While he was gnawing at the last of a lobsterish forearm, Barton stumbled onto the outskirts of a field scattered with odd-looking vehicles, dully metallic in hue. Anyone with half sense had to know that a saucerlike object in such a place would be a spaceship, and so Barton sprinted for a saucer.

It was bigger than it had looked from a distance, about forty feet in diameter. The bottom surface curved upward; the outer edge was inches higher than he could reach and offered no handhold to jump for. He walked around it, looking for access and finding none. Dammit, there had to be a way into the thing! He stood for a moment, baffled, then began a second and slower circuit, inspecting the surface above him inch by inch.

Ahead, out of sight around the curve of metal, Barton heard a sound of machinery in motion. Carefully he disengaged his bone sword from the robe and advanced, to see a curved ramp descending from an area about midway between edge and center of the saucer shape. He scuttled forward to be under and behind it as it touched ground. Then he waited. Somebody certainly was in no hurry. His sword hand was sweaty; he wiped it on his robe.

When Barton heard footsteps above, he peeked around the edge of the ramp. One robed lobster was descending. Barton waited to see if more would come or if this one would look back and say anything to others in the vehicle. Neither happened; there was only one lobster.

As it stepped off the ramp, the mechanism began to rise, slowly. Barton took three steps forward and swung his sword to belt the lobster across the side of the head as hard as he could. It went down but didn't stay down; it came up facing Barton. Holding the sword hilt in both hands, he lunged to the midsection with his full weight. The thrust bounced off, but the creature dropped, holding itself and breathing in ragged gulps. Out of breath himself, Barton let go the sword, turned and jumped to grab the end of the ramp.

The gap was within inches of closing; the thought flashed through his mind that he could lose some fingers. But with his weight on the ramp, it sank again. He didn't wait; as soon as there was clearance, he scrambled on and clambered up as fast as he could manage.

At the top was a door. Barton turned its handle and pushed the door open, wishing he hadn't had to leave the sword behind. But he found only an empty corridor. A glance below showed that the lobster wasn't having much luck getting up, and so Barton didn't wait to see the ramp all the way closed. He found the way to secure the door from inside and settled for that.

There were a lot of doors, and presumably compartments behind them. Barton ignored these and stayed on the main corridor. A little later, in a closed windowless room that he also locked from inside, he looked at the control assembly and wondered if it made *any* sense.

There had to be a way to find out, if he could think of it. For starters, there was a projecting lever that swung smoothly in every direction, to no effect. And another that moved only up and down, but nothing happened there either. And a neat rectangle of what seemed to be toggle switches, with one larger turquiose-handled one in the center. Starting at top left and working to the right, like reading an English-language book, Barton gingerly flipped each of the smaller toggle switches up and immediately back down, to see if by momentary activation he could get some clues without necessarily killing himself.

Nothing happened. OK, Barton said. The swivel bar has to steer this thing, and the up-and-downer has to be the go pedal. Or else I am already dead and just don't know it yet. And these other flips are auxiliary controls. So the big blue devil in the middle has to be where the action starts.

Checking to see that all the toggles were back where he'd started, and the two levers also as near to neutral as he could tell, he flipped the turquoise switch. There came a heavy persuasive hum all around him, then a thin screaming from somewhere else in the place. The scream wasn't steady like the hum; without thinking, Barton left the controls and went looking for it, on the run.

It was a smaller-than-average lobster, about three-quarter scale. Barton caught it trying to unlock the door to outside. Every impulse shrieked at him to kill it, but because even now he had a soft spot for small, presumably young creatures, he tried to subdue it instead. Paradoxically, his weakness prevented him from doing so without injuring it — in the struggle he accidentally broke one of its arms. He dragged it back to the control area and using its own robes tied it down into a seat. Still it screamed.

The high piercing sound didn't help Barton's concentration. His sight was flickering again, like an out-of-tune TV set with the picture jiggling to the peaks of the sound track. His ears filled the silences with a dull ringing, and once a voice spoke in his head: "Give it up, Barton. You lost." When the control panel began to change into a gray wall, he fought himself

back from past the brink of panic and proceeded to reason with the small screaming lobster in the only way he could manage.

He persuaded it to stop screaming, and then to stop a kind of whimpering, by giving it a full open hand slap across the eyes every time it made a noise. After a while it got the point. Barton was glad, because his hand was getting as sore as his sensibilities. So was his throat; he had accompanied every slap with a shout. He was parched thirsty.

His spaceship was still humming. Barton tried his tentative steering and throttle levers, but nothing happened. Well, then, back to the rectangle of toggles.

The first few, as he flipped them quickly on and off, did nothing spectacular. The one at the right end of the top row made the whole machine push up at him gently. He flipped it full-on, then, and realized the thing had to be airborne. Flying by the seat of his pants, he worked his self-designated throttle and steering levers gingerly and found that indeed they gave the feelings of acceleration and turning that he had expected. So he went straight up, the best way he knew to keep from hitting anything while he figured things better.

The only trouble was, he still couldn't see out. Also the little lobster was keening again, and he couldn't spare a hand to slap it.

Suddenly Barton was standing under a great golden dome with deep tones of organ music reverberating around him. He shook his head; this was no time to play around with hallucinations, even pleasant ones. It was hard to get back. He had spent a lot of time perfecting that mental escape from the lobsters' cage, he was beat all out of shape, and the miniature Demu's noise was disrupting his thought patterns badly.

But he made it; and instead of slapping his small lobster to shut it up, he took a deep breath, bracing himself, and hit them both with a heavy-G vertical swerve. It did the job; he had silence. Then he went back to the methodical quick testing of the bank of switches.

He was a long time finding the one that gave him an outside view and somewhat longer in learning that the toggle switches also twisted to give fine controls such as focus or magnification. It was then that he found he hadn't captured a spaceship, after all.

It was nothing but some kind of a goddamned aircar. There were quite a few more of the same, hanging with him and surrounding him. Barton didn't quite panic, but he did try to make a run for it. It didn't work; they stayed right with him. His mind had not quite decided to run away from home

and leave him to manage by himself when he noticed that neither his nor the other airborne vehicles could approach each other too closely; some invisible cushion kept them apart. Barton the ex-physicist thought briefly on the possible ways of obtaining such an effect; then Barton the escaped caged animal took over, wanting only to escape what came at him, or smash it if necessary. He explained the position to his captive lobster several times, but it did not answer, having learned that noise would cause it to be hit, by Barton. It did get up the nerve to say "Whnee," quietly. Barton took this well; he smiled and did not slap the smallish lobster. The exchange might eventually have developed into the first conversation between Barton and a Demu, if he had had the time for it. But of course he didn't.

Barton, though, was only stretched out of shape, not out of commission. He went back to testing the switches that he'd merely flicked before to see that they wouldn't kill him; now he left each one on long enough to see what it controlled. So sooner or later he had to turn on the visual and voice intercom, through which the opposition appeared to have been trying to reach him for quite some time. It was the third switch from the right in the fourth row from the top.

The big lobster in the foreground of the viewscreen broke into excited gestures and loud shrill sounds; so Barton knew the view was two-way. The smaller lobster beside him shrilled back in answer. It was all too loud and too fast for him to follow, but finally it struck him that they were exchanging communication he didn't understand.

He could *not* allow them to talk over his head. That way led back to the cage. Bracing himself so as not to move the controls accidentally, Barton belted the small lobster across the eyes as hard as he could, backhand. It felt like hitting a rock; he hoped he hadn't broken his hand. The creature slumped limply; brownish fluid dripped from one nostril hole and a corner of its mouth. Barton felt remorse, but only briefly: he didn't have time for it.

The big one on the screen was yammering again; Barton couldn't follow the text. He shook his head impatiently. He knew it was his own stupid fault for not going along better with the language lessons, but he didn't feel like admitting any blame. "You want to talk with ME, you lobster-shelled bastard, you talk MY language!" he shouted. "TALK ENGLISH, or go to hell!"

He repeated this with variations while with half his mind he

jockeyed the aircar against the attempts of his escort to herd him in the direction of their choice. The other aircars surrounded him and tried to mass their pressure shields to move Barton the way they wanted to go, but there weren't enough to hold him and push him at the same time. And he was feeling just stubborn enough to fight anything they wanted him to do: anything at all. Hallucinations nibbled at him, but now he decided they must be effects of the Demu unconsciousness weapon, leaking past the aircar's shields. The hypothesis, true or not, made it surprisingly easier to fight the phantoms off. So with something like enjoyment he used his considerable kinesthetic skills to thwart their efforts to herd him. The upshot was that the dozen or so aircars danced around much the same area for quite a while before the next development on the viewscreen. Which was that it spoke his name.

"Barton!" it said. "Thish ish Shiewen. You musht lishen to me!" On the screen was what Barton had come to think of as the twitchy lobster, the one that didn't look quite like the rest. It sounded like a voice he knew, and now he remembered Doktor Siewen. But why would Siewen sound like a comic drunk act?

Barton put the odd pronunciation to the back of his mind and concentrated on the meaning. "Doktor Siewen? I don't believe it. Throw that damn hood back and let me see you." It seemed strange to be *talking* with anyone, anyone at all.

As the hands came up and the hood went back, Barton heard a ghost voice: Doktor Siewen's. "They catch people and turn them into Demu."

They sure as hell did. Without the hair and ears and nose and eyebrows, with the serrated lips over toothless gums and a shortened stumpy tongue, the thing on the screen didn't look much like Siewen except for the chin and cheekbones. But the skull and neck were human-shaped, not lobsterish. The eyelids looked a little odd; Barton decided they'd been trimmed back to get rid of the eyelashes. And a long-forgootten memory reminded him that the sounds of *s* and *z* cannot be made without touching the tongue to teeth or gums at the front of the mouth; otherwise the result is *sh* and *zh*. He put that answer in cold storage, too, trying to absorb the shock.

It wasn't that the creature on the screen was so horrible in itself; when you've seen one lobster, you've seen them all. The obscenity was in knowing what it had been

before the Demu had set to work. Barton had thought he hated the lobsters already; he found he hadn't even begun.

"All right, it's you, I guess," he said. "I'm listening; go ahead." Idly he noticed the hands with three fingers and no nails; the jog at the wrist line showed that the little finger had been stripped away, all along the palm. He bet himself a few dead lobsters on the condition of Siewen's feet, then shook his head and listened.

"Barton, you musht come back." Barton's mind, back where he wasn't paying too much attention to it, was irritated by the distraction of the distorted sibilants and decided to ignore them. "The young Demu you have is the egg-child of the Director of this research station. Shut off your shield; it is two up and three over from bottom left of your switch panel. The Director offers you full Demu citizen rights."

Barton chuckled; sometimes you draw a good card. "Well, now, is that *right?*" Not waiting for an answer because he didn't need one, he went on: "Forget what the Director wants. Forget what the Director offers. If the Director wants his gimpy-arm egg-child back in mostly one piece, the important thing is what *I* want. And for starters, I don't need any company around here. Get this bunch of sheepdogs off my back; I won't talk any more until you do. And get that damned sleep gadget off my mind, too. I'll wait." By *God*, but it was good to be able to talk back for a change, to have a little bit of personal say-so. He waited, not too impatiently.

Soon the surrounding aircars grouped to his right and departed. The twitchy lobster who had been Doktor Siewen came back to the screen. Barton spoke first.

"Now I want information. Lots of it. How much fuel time do I have in this kite? And look, Siewen, or whatever you are by now — tell him, don't anybody try to shit me about anything. Because, anybody gets tricky, nobody can stop me from using this bucket to kill myself. They know damn well I've been trying to do that for a long time. And there goes the Director's egg-child, whatever that means, right down the spout along with me. You got that straight?"

Siewen nodded, scuttled back to exchange shrill communications with the Director. You may be the King of the Lobsters, thought Barton, but to me you're just one damned big overgrown crawdad! Siewen came back to face Barton. "It is not-fuel, your problem," he said. "Thirst and hunger, yes. You have no food or water, Barton. You must come in; I give you directions. Yes?"

Barton looked at the small comatose lobster beside him and snorted. After all this time, these creatures still didn't realize what they had on their hands, what they had made of him.

For one thing, they were still trying to lie. Rummaging under his seat, he had found a container of liquid: about two quarts and nearly full. It smelled as if it could be lobster piss and maybe it was, but probably it wouldn't kill him. No point in telling everything he knew, though, Barton thought.

"Where are you, Siewen? I don't mean the location, but what kind of place?"

"It is Director's office, of the research station. Also control area for spaceship landing place just alongside. You can get here easily. Location device, bottom left switch, homes on signal beacon here. Small instrument." Siewen pointed; the thing looked like a portable radio. "Just watch on screen."

"Sure. Are there spaceships there?"

"Yes, several. Different sizes."

Barton told himself to be very, very cautious. "Siewen, has the Director ever been to Earth? Our Earth?"

"Oh, yes," Siewen responded, "he was in charge of navigation on expedition picking ourselves up. But first time he or this group ever see humans or Tilari, any of our type humanoid. Some mistakes they made." You can say *that* again, Barton thought. But now he needed more facts, in a hurry.

"What's the smallest ship available that could get from here to Earth? How many does it take to handle such a ship? TELL THEM NOT TO LIE TO ME!"

"There is no cause to lie," Siewen said calmly. "A ship to carry eight is here; it could go twice to Earth and back; one can control it. But you are not to go to Earth, Barton. You are to come here and become a citizen of the Demu. Out of the mercy of the Director and his concern for his egg-child."

Deep in his throat Barton growled, not quite audibly. "We'll see," he said. "Take that robe off, Siewen."

"What? Why?"

"Just do it."

He had known all along, Barton thought wearily. He glanced perfunctorily at the feet, long enough to confirm that the little toes had been cut away back through the metatarsals to the heel, and that the toenails were missing. The obliteration of body hair and nipples and navel was no shock. And of course the crotch was like that of a tree, or a lobster.

Siewen must have noticed Barton's gaze; one hand tentatively reached for that juncture, then drew back. "You don't understand," Siewen said. "They didn't know. I said, it was first time this group had to do with humans. Only with other races, not like us. They didn't *know.*"

"Sure not," said Barton.

"I don't really mind so, any more," Siewen said hurriedly, "and they don't do that way now. They learned, some from observing you, Barton. Now they retain function and only minimize protrusion. There is one here, done so. I must show."

"Later!" Barton ground out. He didn't want to see any more examples of Demu surgical artistry for a while; his will to live was shaken enough, as it was. "Just tell me one thing, will you? *Why* do they do these things?"

"Hard to understand, for us. But Demu are old race, very old. And for long, long time they know of no others, intelligent. They have deep belief, almost instinct, that Demu are the only true *people.* That all others are only aoimals."

"Well, haven't they learned better than that by *now?* And what does that have to do with — your face-lift, and everything?"

"When they meet long ago a race, animals they think, who learn Demu language, it is great shock. Animals being people when only Demu are people. Demu cannot accept. So they — this is only guess by me, you understand, but I think it is very good guess — so they when any animal learns Demu language, make it Demu, best they can. As with me and others. They make mistakes; many die. I am lucky." Barton thought that was a matter of opinion. He didn't bother to say so.

He was still digesting what he had heard when Siewen's voice reminded him that this was no time for philosophizing. He had things to do, fast, before the opposition caught its balance. He couldn't afford to get off the main point.

"Barton!" Siewen began. "You must —"

"LATER! Siewen, get your Director up front with you and translate for us. I'm in a hurry; tell him that; don't either of you try to mess around with me. Now MOVE!"

Barton told them exactly what he wanted. They didn't believe him at first, and he supposed they would have laughed if a lobster knew how to laugh. But he persisted, figuring that he had an ace in the hole.

"Barton," said Siewen, "you are speaking useless. The Director will not give you a spaceship to go to Earth. No one can command the Demu."

"Does the Director want his egg-child back alive, or doesn't he?"

"Wants back, yes," Siewen

acknowledged. "But at your price, no. Demu have died before and will die again." I'll drink to that, thought Barton. "Safe return of egg-child buys you life and citizenship among the Demu. No more. I do not want to tell you what will be done if you are taken alive and egg-child dead. Now see reason, Barton. You have tried well. You are admired for it, even. But now it is finish. You must come here and accept Director's terms."

Want to bet? thought Barton. But he said, "Tell me one more thing, Siewen. Can the Demu regrow lost limbs? Like the lobsters back home?"

"No," said Siewen. "Why ask that?"

"Just curious." Barton paused for a moment, thinking it out. "Siewen, tell the Director that I am getting very hungry." There was a muffled conference on the screen.

"The Director says come here and be fed," Siewen announced. Barton grinned.

"I don't have to," he said softly. "Let me tell you about the last meal I had."

He told them, and the funny part was that Siewen seemed every bit as shocked as the Director. Barton let them chew on the idea a minute before he threw the bomb.

"OK, Siewen, here's how it works. Tell the Director and tell it straight. Either I get the ship to go home in, instructions and all, and the deal gets started right away, or else I have lunch now." He thought about it. "Considering everything, I don't feel especially sadistic. So first I'll just eat the arm I've already broken. I'll leave the screen off so the Director doesn't have to watch."

Barton hadn't thought a Demu-lobster could get as loud as the Director did then. Eventually Siewen got the floor. It seemed Barton had won his point; he had a good healthy ship for himself. Sure Mike, thought Barton, just watch out for the curve balls.

Well, he'd known there had to be a handle somewhere in the mess; lucky he'd found it. It had been a one-shot bluff, a game of *schrecklichkeit 8* because it would have done him no good to carry it out, even if he could have brought himself to do so. But what the Director didn't know wouldn't hurt Barton.

His mind was getting hazy again, ghost hallucinations flickering around the outskirts. Toothlessly, the Tilari woman was telling him they were expecting a little bundle from Heaven. He shook his head and tried to concentrate on the essentials.

"OK, Siewen," he said, "I don't need any coordinates to get to you, if I understand this location-blip thing on the screen." Siewen

nodded. "Here's what happens," Barton continued. "You and the Director get down by the ship — my ship. Bring your locator gadget with you so I don't have to mess around looking for you when I get there. Everybody else stays away. Any last-minute tricks, I cut the shield and ram us all dead. You got that? Any questions?"

There were several, but Barton simply said "NO" to most of them without paying much attention. He knew what he wanted. There was no point in arguing.

Then Siewen, at the Director's prompting, insisted Barton should see and talk with some other newly made citizens of the Demu, before doing anything so drastic as what he was planning. "The hell with that," said Barton. "Later. Just you two. Nobody else."

It was about an hour that Barton's aircar took, cruising to its destination. He saw no signs of habitation; possibly the research station was the only Demu installation on the planet. The little lobster was conscious again and whimpered occasionally, but it looked so apologetic that Barton didn't feel like hitting it, even to maintain the precedent of silence. Anyway, the small sounds weren't joggling his mind as the screaming had done. He sipped on the foul-tasting water and decided it wasn't lobster piss after all, since his small lobster made begging motions toward it and drank some when he relented and made the offer. Then it opened its mouth and lifted its short tongue. Barton had no idea what the gesture meant, but the creature rewarded his generosity with silence.

The spaceport, when he reached it, didn't look like much. There were three really big ships, two medium and one small. Upright torpedo shapes, not saucers. The big ones would be the meat wagons, he thought. They had an air of neglect about them.

He set the car to hover a little above and to one side of the small ship, facing a delegation of robed figures at fairly close range. He cranked up magnification on the direct-view display screen and saw that there were four of them.

"What the hell you think you're doing?" Barton said. "I said *nobody else.*"

Siewen shrugged and spread his arms apologetically. "You must see other new Demu citizens," he said. "You said later, but only chance is now. You must know. With me there were mistakes, yes. But there are functional breeders and Demu citizens. As millions of Earth humans will become, and all eventually, when the Demu have arranged. But see —! You will not forget Limila; the other is of Earth." Siewen gestured.

The two figures slipped off their hoods and robes. Barton took for granted the hairless, earless, noseless heads with serrated lips hiding toothless mouths with shortened tongues. (But, oh! the lost lovely curve of Limila's lips!) He didn't expect to see breasts set low on Limila's rib cage, and, sure enough, there weren't any. The lobsters scrubbed clean, single-mindedly. Siewen had said that the smooth treelike look of her, where Barton was looking now, still concealed true function: even so, it was one more coal on the fire in Barton's heart and mind.

Then there was the man, an Earthman if Siewen had that part right. Siewen had certainly told the truth that the Demu had "minimized protrusion" in the genital area; whether or not the Demu citizen on the screen "retained function" was of only academic interest to Barton. He was trying very hard not to throw up. It's like the old joke about the man who went into the barbershop, he thought. "Bob Peters here?" "No, just shave-and-a-haircut."

"*Siewen!*" he shouted. "I've changed my mind."

"You come now and become Demu citizen?"

"Like bloody hell I do!" Barton, bursting with frustration and hatred, took especial pains not to turn and kill the small lobster beside him. Hell, it probably hadn't even carved up its first human yet.

"Then what is it you mean?" said Siewen.

"I mean we all go on the ship," Barton said. "The two of us here and the four of you there. All together we go in; don't move yet, any of you, or I crash the lot of us."

There was a conference down below. "Not possible," said Siewen, "the Director does not agree."

"In that case," said Barton, "I think it's time I had some lunch. I've changed my mind; I'll leave the screen on so that the Director can observe. I always did like crab salad." And he reached for the dangling broken arm of the small quiet lobster, the Director's egg-child.

Not too much later the Demu spacecraft lifted off, carrying six assorted entities with very little rapport.

The ship's basic control system was roughly the same as the aircar's, though with many more control switches. For the moment, all Barton needed was power, navigation and an outside view. He'd worry about the rest of it later, when he had to.

Siewen assured Barton that the Director had given him the correct course toward the region of Earth and had agreed there would be no pursuit. Barton assured Siewen

that the Director damn well better had, if the Director wanted Barton to watch his diet.

A tense truce prevailed, largely because of Barton's policy that he would not put up with the company of fully functional Demu. He had broken one of the Director's arms the moment they were sealed inside the ship, when that worthy had tried to make use of a concealed weapon. Then after a moment's thought, he broke the other one. Subtler methods might have done the job, but since Barton had found something that worked, he stayed with it. He had trouble thinking outside the narrow boundaries of his main goal: freedom. The Director treated Barton with considerable respect and was fed at intervals by his egg-child, one-handedly.

Barton set and splinted the broken limbs, which was more than the Demu had bothered to do for him in like case. His own forearm still had a permanent jog to it and hurt more often than it didn't.

That wasn't all that hurt in Barton. Limila remembered him; the Demu hadn't done anything to her mind that he could detect. He realized, though, that he wasn't much of a judge of minds. Including his own.

She came to him in the control area which he never left unguarded; when he slept, he sealed it off from the rest of the ship. She told him, in her *sh-zh* lobster accent, that she wanted love with him. She parted her maimed lips and showed the Demu-shortened tongue lifted in what he now knew to be the Demu smile. With the forty teeth gone he could see it quite clearly.

The trouble was that the Demu-Limila still had Limila's shape of skull and chin and cheekbones. The quicksilver-colored huge-irised eyes were as deep as ever, though their shape was subtly marred by the slight cropping of the eyelids. Her arms and legs were graceful if Barton avoided seeing the hands and feet, and aside from breasts and navel and external genitals, the Demu had not altered her superb lithe torso.

Barton closed his eyes to shut out the sight of the Demu-denuded face and head, put his cheek against Limila's and tried to make love with her. It might have worked if he hadn't noticed the ear that should have been against his nose and wasn't. So instead he failed; he failed her. He was crying when he gently put her out of the control area and relocked it, and for a long time after.

Then he went into the main passenger compartment to see if he could keep from killing the Director and his egg-child out of

hand; for the moment, he succeeded. It was a success that helped Barton's dwindling self-confidence. He had all he could do to keep himself under control, let alone keeping the ship on course or his fellow voyagers in hand.

For one thing he was continually bone-tired. The pseudodeath experience had taken more out of him than he'd realized at first. Followed by a period of hectic activity and nervous tension, and now the need for near-constant alertness, it still dragged him down; recovery was so slow as to be indetectable.

His condition made him easy prey to mental lapses. He became accustomed to waking, as often as not, to find himself apparently back in his cage; each time it took minutes to fight his way back to reality. More frightening were occasional hallucinatory lapses in the presence of others: once he found himself on the verge of defending his Ph.D. orals presentation to the professor who had washed him out before he realized tbat the prof couldn't possibly be there; it was the Director who sat before him.

Every sight of Limila burned more deeply into him than the last, into a place where gentleness had once lived. Where now grew something else — something that frightened him.

He didn't let the others see his difficulties any more than he could help, and they were too afraid of him to try to take advantage of his lapses. They were not wrong; Barton was walking death and knew it; he had been for longer than he liked to admit. He kept to himself as much as possible, consonant with the need to keep tabs on his passengers.

Once he looked into a mirror and found he didn't recognize himself. He had no idea how long it had been since he might have been able to do so. He looked at the face in the mirror and decided he didn't like it. But then it wasn't really his own work, he realized when he stopped to think about it. The thought made him feel a little better, but not much.

So it was a long tired haul. The "trip out," as Barton thought of it, must have been either on a faster ship or with a lot of induced hibernation; he had no way of knowing which, if either, was the correct guess.

Limila came to him again, wanting his love. He tried to turn her away; she didn't want to go. "Barton," she said, clinging to him desperately, "I am still Limila. They do all this to me, yes," she stepped back and gestured at her head, at her body, "but inside I am still ME. I AM!" His eyes blurred with tears, losing the fine outline of

skull and cheekbones, of neck and shoulders as she stood before him. Seeing, then, only the lobsterish lack of features, it was easier for him to keep shaking his head speechlessly and back her firmly out the door, locking it after her with a vicious yank that nearly broke the lever.

The next time he saw her she was slumped in a corner looking at the floor. He didn't disturb her trance, but it disturbed *him* a lot.

Hallucinating was a dangerous game to play, for him, now; he knew that. But he thought it might be a solution, with Limila. He invited her into the control area, looked at her and deliberately tried to substitute in his mind her natural appearance.

It worked, and for a few moments he thought it was *really* going to work. But his mind picture of unmaimed Limila shifted and distorted. Against all the force he could bring, it changed into the other Tilaran woman, the one with no nail joints, the blank stare and the scars at the temples. It writhed and screamed, dying again. Barton screamed too, but he didn't hear most of it. When he fought his way back to reality, the sight of the lobster-faced Limila seemed almost beautiful. But only almost. He could not love it, would never be able to do that.

Limila crouched against the door, terrified. "You must think I'm crazy," Barton said. "I'm sorry. I thought I could fool myself, pretend you were unchanged. It — it didn't work out quite that way. I saw something worse, instead." He knew he couldn't explain further and said only, "I'm sorry, Limila."

She went away of her own accord, looking back fearfully.

Barton tried to pair her off with the Demu-ized Earth male who supposedly "retained function." That one was a real enigma; he wouldn't speak to Barton or to anyone at all except in Demu. Barton couldn't discover his name or anything else about him, except that apparently he had become Demu wholeheartedly in spirit as well as in guise. Barton decided that when it came down to cases he had more respect for Doktor Siewen. Which wasn't saying much.

At any rate the pseudo-Demu wanted nothing to do with Limila, nor she with him. Barton asked Limila about the matter but wasn't sure whether he misunderstood the answer or simply didn't believe it. "He say," Limila told Barton, "it not Demu breeding season now." She gave Barton the view of uplifted tongue, the Demu smile. "The Tilari do not wait on season, nor you, I think." But she had smiled like a Demu. Of course, Barton reflected, locking himself alone into the control area, it was

the only way they had left her to smle. Well, there wasn't any answer; maybe there never had been. Or not lately.

Barton now avoided Limila almost entirely. It was the only thing he could do for either of them. The next time the "functional" Demu-Earth male got in his way, Barton without warning knocked him square on his back against the opposite bulkhead and was happily beginning to kick him to death before Limila tried to push between them, shrilling, "NO, NO! WHY? WHY?" Barton had no answer, shrugged and moved away, marveling at his ability to leave the two Demu alive as long as he had.

Actually, not noticing the change much, Barton had become rather fond of the Director's small egg-child. Without knowing its name, or being able to pronounce it, probably, Barton thought of it as female. He called it "Whnee," after the sound of its rather plaintive little cries when uncertain what was wanted of it. It tried to be helpful with the ship's few chores, and Barton came to think of it as a nice-enough kid; too bad she came from such a rotten family. Occasionally it would make the Demu lifted-tongue smile at him, and oddly he found the gesture not at all repulsive, but rather appealing.

Siewen was no trouble; he was only a shell, not a person. He reflected the thought or policy of The One in Charge; once that had been the Director, now it was Barton. Any authority was good enough for that which had once been Doktor Siewen.

The Director was no problem either. Barton simply didn't bother to take the splint harnesses off his arms, even when they had probably healed. The other Demu-human tried to unstrap the Director once, but Barton caught him and so reacted that neither Whosits nor anyone else tried it again. It took another set of splints; Barton guessed he was in a rut.

But what the hell, it worked, which was more than Barton could say for much of anything else he'd tried lately. The only late effort he liked much, was his clothes. He'd hated the Demu robes that all the others still wore. He had essayed nudity but found it too reminiscent of his captivity. Eventually he had ripped a robe into two pieces: one made a loincloth and the other a short cape that left his arms free. Barton didn't care what it looked like; it was comfortable. He could use all the comfort he could get.

Finally the ship approached Earth's solar system. Barton was going home. Not really, of course. There was nothing for him there. He knew he'd be lucky to get a hearing before being locked up as a public menace. But he had to take the risk, because it was everybody's chance, maybe the only one Earth would ever get. He wasn't looking for a return to normal life. That wasn't in the cards; he'd been playing too long with a thirty-eight-card deck. But there was one thing, for sure.

Barton had survived; maybe Earth could survive. He had to give it the chance to try. He was bringing home a fair sample of what Earth was up against: the lobsters, their ship and some of their other works.

The lobsters would be confined and studied; Barton smiled grimly at that prospect. He wondered how long it would take them to get used to the fact that on Earth it's messy to piss on the floor. He might go to see the little one sometimes if anyone would let him; they could say "Whnee" to each other and maybe now and then she'd raise her tongue in the Demu smile.

He couldn't bring himself to worry about what might become of Siewen or Whosits; he had enough worry on his own account. But he hoped someone — someone more capable than he — would take care of Limila. All Barton could do was try to take care of Earth, and maybe of Barton, with luck.

The ship could help a lot. It and its weapons would be analyzed and copied, maybe even improved. Human science had been moving fast, the last Barton had heard; no telling how much further it had gone.

Most important, though, was showing Earth what the well-barbered humanoid wouldn't be wearing next season if the Demu had their way, as modeled by Siewen and Limila and Whosits. Barton thought he knew how the people of Earth would react.

They wouldn't like it any better than he did. They might decide to teach the Demu what it meant, to cage a man.



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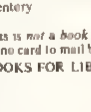
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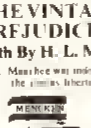
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